2024 ANNUAL RESEARCH REVIEW

National Institute of Fundamental Studies - Sri Lanka

Ministry of Science and Technology

WE ARE THE PREMIER INSTITUTE FOR ADVANCING FUNDAMENTAL SCIENCES

OUR VISION

TO BE A WORLD RENOWNED CENTER OF EXCELLENCE FOR RESEARCH IN FUNDAMENTAL STUDIES

OUR MISSION

INITIATE, PROMOTE AND ENGAGE IN ADVANCED RESEARCH IN FUNDAMENTAL STUDIES FOR THE ENHANCEMENT OF SCIENTIFIC KNOWLEDGE AND DEVELOPMENT OF HUMAN RESOURCES CONTRIBUTING TO NATIONAL DEVELOPMENT.

Message from the Hon. Minister

Annual Research Review - National Institute of Fundamental Studies

It gives me great pleasure to send this message for the Annual Research Review (ARR) of the National Institute of Fundamental Studies (NIFS), a premier institution dedicated to advancing basic sciences in Sri Lanka. This annual review is a unique and exemplary event within the Sri Lankan scientific landscape, as no other research institute in the country conducts such a rigorous and comprehensive review of its scientists and research programs on an annual basis. This process has been a cornerstone in maintaining the high standards and scientific excellence for which NIFS is known.

The role of science, technology, and research is more critical than ever in shaping Sri Lanka's future, and it is the clear mandate of the new government to actively promote and support science and technology as key drivers of national development. Fundamental research, as carried out by NIFS, serves as the bedrock upon which applied research, innovation, and technology commercialization can thrive. The contributions made by NIFS are not only valuable to the scientific community but also essential in addressing national priorities through evidence-based solutions.

It is heartening to see NIFS ranked among the top four research institutes and universities in the country. This achievement reflects not only the quality of research undertaken at the institute but also the dedication and commitment of its scientists and leadership to upholding scientific integrity and excellence. The Annual Research Review provides a vital platform to evaluate progress, encourage constructive feedback, and refine future research directions to meet both national and global scientific challenges.

As we work toward building a knowledge-driven economy, it is institutions like NIFS that will play a pivotal role in fostering innovation, nurturing future scientists, and advancing scientific knowledge for the benefit of society. I extend my sincere appreciation to all those involved in organizing this year's Annual Research Review and wish the event every success.

Hon. Dr. Chrishantha Abeysena M.P.
Minister of Science and Technology

Message from the Chairman

It is with great pride and a deep sense of responsibility that I extend this message as the Chairman of the National Institute of Fundamental Studies (NIFS), Sri Lanka's premier institute dedicated to fundamental scientific research.

At NIFS, we believe that fundamental science is not merely an academic pursuit, but the very foundation upon which sustainable development and technological advancement are built. Our research spans a diverse array of disciplines — from materials science and nanotechnology to food chemistry, environmental science, and biodiversity conservation — all addressing national priorities while pushing the boundaries of scientific knowledge.

NIFS holds a unique position in Sri Lanka's research landscape, serving as a bridge between foundational knowledge and practical innovation. Our discoveries have led to transformative applications, contributing directly to sectors such as renewable energy, food security, environmental management, and health. Through innovative work in areas like advanced energy storage, air and water purification, and the development of high-value products from indigenous plants, we not only add value to Sri Lanka's rich natural resources but also contribute to global scientific discourse.

The value of such fundamental research becomes even clearer in the face of modern challenges — from climate change and biodiversity loss to food security and public health. At NIFS, we embrace these challenges as opportunities for scientific exploration, driving homegrown solutions through research excellence.

I take this opportunity to commend the dedicated researchers, staff, and collaborators of NIFS whose tireless efforts ensure that the institute continues to shine as a beacon of scientific excellence. I also invite the wider scientific community, industry partners, and policymakers to work hand-in-hand with us to harness the full potential of fundamental science for the benefit of Sri Lanka and beyond. I would also like to extend our invitation to informed public and lay community who are the ultimate beneficiaries of research outcomes and outputs to engage and involve as a crucial stake holder in our endeavors. I would like to stress the role and responsibility of the media in this challenging task.

I extend my warmest wishes for the **Annual Research Review** to be a resounding success and wish all presenters, researchers, and participants a productive and inspiring review and look forward to seeing how the knowledge generated at NIFS continues to contribute to both local and global scientific progress.

Professor Athula Sumathipala
MBBS, DF.MD, FRCGP (Sri Lanka), FRCPsych, CCST(UK) PhD (Lon)
Chairman
National Institute of Fundamental Studies, Sri Lanka

Message from the Director

I take great pride in sending this message for the Annual Research Review of the National Institute of Fundamental Studies (NIFS). Annual Research Review of the National Institute of Fundamental Studies (NIFS), the only national research institute in Sri Lanka dedicated exclusively to conducting fundamental research. NIFS holds a unique position, being the only institute where graduate students are part of the cadre, engaging in full-time research alongside our senior scientists. This collaborative research culture fosters innovation while nurturing the next generation of scientific leaders.

The performance of our scientists is rigorously evaluated each year through external review, ensuring we maintain the highest standards of research excellence. This unwavering commitment to quality has positioned NIFS as the **highest-ranked national research institute** in Sri Lanka, according to the AD Scientific Index. Our **per capita publication rate and citations remain exceptionally high**, underscoring the global impact of our research output.

While fundamental research remains our core mandate, NIFS actively supports translating research findings into applications that benefit the public and private sectors. Several of our research outcomes have already been successfully commercialized. In **2024**, we were proud to see the commercialization of a **clean water technology project**, and **another project focusing on producing battery-grade graphite is progressing toward commercialization**.

The year **2024** has been an exceptionally productive year for NIFS, not only in terms of scientific output but also in aligning our work with national priorities. We are pleased to note that the **new government is actively promoting a stronger research culture, encouraging commercialization of research for the benefit of society, and allocating more resources to support these efforts**. This timely national focus reinforces the importance of our work and provides a valuable opportunity for NIFS to further contribute to national development through scientific innovation.

I extend my sincere appreciation to our researchers, graduate students, administrative staff, and collaborators for their relentless dedication and passion. Together, let us continue to push the frontiers of knowledge and translate science into meaningful outcomes for the people of Sri Lanka.

Prof. D.S.A. Wijesundara F.N.A.S

Acting Director
National Institute of Fundamental Studies
Sri Lanka

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SECTION I – RESEARCH PROGRAMMES

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BIOLOGICAL SCIENCES DIVISION

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EARTH AND SPACE SCIENCES DIVISION

ENVIRONMENT SCIENCES DIVISION

Project leaders are responsible for the authenticity of the reports they have submitted

Evolution, Ecology & Biodiversity Research Programme

Prof. Suresh P. Benjamin ***Research Professor***
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Research Project Introduction:
Biodiversity research explores ecosystem functions, with a focus on the Western Ghats–Sri Lanka hotspot. Tropical mountains, including Sri Lanka's central highlands, harbor many endemic species. According to our estimate, over 90% of invertebrates remain undiscovered, with some restricted to single mountain peaks. These species might face threats from habitat loss and climate change, making conservation efforts crucial. Understanding their distribution and ecological roles is essential for preserving biodiversity and mitigating environmental impacts in this unique region.

Research Activities:
The following research activities were conducted:

1. **Molecular Phylogeny of Ground Spiders** (Araneae: Zodariidae, Liocranidae): A revision of selected Sri Lankan genera—*Cryptothele*, *Oedignatha*, *Utivarchna,* and *Mallinella*—was carried out based on morphology and target gene analysis.

2. **Taxonomic Revisions of Jumping Spiders** (Araneae: Salticidae): A morphological and molecular study of Sri Lankan jumping spiders, focusing on genera *Ballus*, *Colaxes*, *Marengo*, *Carrhotus*, *Epidelaxia*, *Telamonia,* and *Thyene.* Salticidae, the largest spider family, currently includes ~6,183 species in 646 genera worldwide.

3. **Phylogenetics and Taxonomy of Crab Spiders** (Araneae: Thomisidae): This study aims to clarify Sri Lankan crab spider biodiversity, redefine genera in phylogenetic terms, and position them within the Thomisidae tree of life.

4. **Biodiversity patterns of herbivore scarab chafers of Sri Lanka** (Sericini: Coleoptera: Scrabeaidae). This study aims to clarify the Ecology, Evolution and Biodiversity of Sri Lankan scarab chafers.

Results/Key findings:
The diversification study of the jumping spider genus *Epidelaxia* was completed and published in *Zoologica Scripta*. Biodiversity research on *Cryptothele*, *Utivarchna,* and *Mallinella* was also published, with *Mallinella* undergoing a full taxonomic revision. Seventeen new spider species were discovered and described in five peer-reviewed papers, several belonging to endemic radiations. Additionally, the diversity and morphological disparity of Sri Lankan scarab chafers were explored in *Ecological Entomology*. The findings revealed divergent lineage patterns across different geographical scales, with Sericini exhibiting a more confined morphospace across various forest types and elevation zones.

From L to R: Ms. W.M.H.U. Wijerathna, Dr. U.G.S.L. Ranasinghe, Mr. N.P. Athukorale, Prof. S.P. Benjamin, Mr. D.N.G. Dayananda, Ms. K.M.R.K.T. Herath, Ms. M. S. Zeenath

Food Chemistry Research Programme

Prof. Nazrim Marikkar ***Associate Research Professor***
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Research Project Introduction:
From its humble beginning in 2018, Food Chemistry programme has grown strength to strength to investigate various aspects of chemistry relevant to food systems. At present, we explore the nutritional values of selected under-utilized plant resources to develop functional foods and phytochemical exploration of selected plant species with potential therapeutic effect. The programme also embarks on quality improvements of crude plant oils of local origin for food and cosmetic applications.

Research Activities:
In 2024, our attention was focused on three sub-themes; food and nutritional evaluation of seed kernel of *Terminalia catappa* L. and optimizing pilot scale oil recovery from it. Under phytochemical exploration, a study was conducted to isolate and purify the phyto nutrients present in Yaki naran (*Atlantia ceylanica*) and their therapeutic potential as anti-hyperglycaemic agents. Under plant-based oils, a study was carried outin collaboration with Coconut Research Institute to develop improvements on the quality of coconut testa oil extracted from the testa of fresh coconuts.

Results/Key findings:
Based on the sub-project of *Terminalia catappa*, fruits' kernel was found as a rich source of oil, making them suitable for edible oil extraction using a mini oil expeller. The defatted residues of the kernel of *Terminalia catappa* L. indicated its usefulness for making dietary supplements rich in protein and minerals. Under Yaki naran (*Atlantia ceylanica*) sub-project, six pure compounds were isolated from the leaves of Yaki naran (*Atlantia ceylanica*). Out of them, the structure of the most dominant compound was also identified. Under plant-based oils sub-project, the dry processing of coconut testa yielded 35% of oil while the wet-centrifuge method was found to provide yield within the range of 7.5 to 22.5% oil depending on the process conditions.

From L to R: Mr. D.G.C.S. Ilangarathne, Prof. J.M.N. Marikkar, Ms. B.S.K. Ulpathakumbura, Ms. H.F. Fahmidha

Microbial Biotechnology Research Programme

Prof. Gamini Seneviratne ***Senior Research Professor***
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Research Project Introduction:
We have developed Biofilm biofertilizers (BFBF) and evaluated its potential as a microbial ameliorator in agroecosystems and the environment. Our current focus is on cross-disciplinary benefits of using developed microbial biofilms (DMB), including biofilm nutraceuticals as next-generation medicine, and several industrially important applications such as bio-remediating agents, bio-stimulants, and sustainable life support systems for space exploration.

Research Activities:
In 2024, we conducted the national program on eco-friendly fertilizers, organized by the Sectorial Oversight Committee on Food Security and Agriculture of the Parliament. The program was implemented across seven provinces and three Mahaweli regions. Its primary objective was to develop and promote sustainable fertilizer practices for paddy farmers, integrating them into the national fertilizer policy. Key participants included the NIFS, Ministry of Agriculture, Department of Agriculture, Mahaweli Authority, and some other organizations. In addition, research was conducted to examine the potential of DMB in enhancing soil quality, increasing water use efficiency and crop quality, and applications in tea cultivation, mushroom cultivation, reinstating microbiota, developing BFN, bioremediation, astrobiology and space exploration, postbiotics production, etc.

Results/Key findings:
The national program introduced advanced eco-friendly fertilizer practices, such as Biofilm biofertilizer, nutrient-enriched organic/hybrid pellet fertilizers leading to a 50% reduction in chemical fertilizer usage. When compared to using only chemical fertilizers, these practices led to a 30% increase in paddy yield. Our research revealed that the DMB could enhance water and nutrient use efficiency, and crop quality in rice, tea, and mushroom cultivations. In addition, we have developed microbial biofilms, which are capable of remediating perchlorate contaminations in the environment, reactivating dormant microbes in soil and gut ecosystems and supporting space explorations by acting as sustainable life support systems.

From L to R: *Ms. H.K.D Herath, Ms. K.A.D. Sathsarani, Ms. W.M.K.I.A. Wijesingha, Mr. S.M.D.B Ariyarathne, Mr. S. Ekanayake, Mr. U.G.H.M Premarathna, Prof. G. Seneviratne, Dr. M. Premarathna, Mr. R. Pathirana, Mr. A. Pathirana, Mrs. S.H. Jayasekara, Mrs. P. Jayasinghe, Ms. I.U. Senevirathna*

Microbiology & Soil Ecosystems Research Programme

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Research Project Introduction:
Microbiology project focuses on the cyanobacteria-based bioremediation of industrial wastewater assessing pollutant removal, nutrient removal, toxicity evaluation and fatty acid profile analysis of wastewater-grown biomass targeting a circular bioeconomy. The soil ecosystems project aims to determine soil carbon sequestration potential, its dynamics, and the methods of improvement in different major vegetation types of Sri Lanka aiming at climate change mitigation and supply of first-hand information to establish a national carbon accounting system in Sri Lanka.

Research Activities:
A project was continued to bioremediate textile industry wastewater, evaluating cyanobacterial growth, pollutant and nutrient removal, while assessing decolorization, and toxicity of treated wastewater. Structural changes of textile dyes were also analyzed via FTIR and HPLC. Cyanobacteria-specific culture collection was further improved and maintained. A study on soil carbon sequestration, nutrient retention and heavy metal deposition was continued in Muthurajawela wetlands, which is an urban wetland ecosystem in Sri Lanka. A study was continued to assess soil carbon sequestration potential of different components of an ancient Tank Cascade System, in the dry zone of Sri Lanka with a view of maintaining the long-term sustainability of tank cascade system. A project was continued to measure the effect of different green biomass incorporation for soil fertility improvement in land with special emphasis on organic farming in Jaffna peninsula**.**

Results/Key findings:
Cyanobacterial strains efficient in textile wastewater bioremediation were identified, including *Nostoc* sp. and *Spirulina* sp. Biodegradation of azo bond in synthetic dyes was detected via FTIR analysis. Heavy metal distribution was quantified and mapped in different land use types in the Muthurajawela wetland complex. Soil carbon storage capacity and major nutrients were assessed in six tanks and associated vegetation types of the Katupotha tank cascade system. The study found significant differences in carbon storage between Chena cultivation and forests, highlighting the impact of land use on carbon storage potential in the dry zone of Sri Lanka.

From L to R (seated): Mr. E.M.S.S. Ekanayake, Ms. S.M.D.C. Bandara, Prof. R.R. Ratnayake, Ms. W.D.U. Premarathna, Mr. P.G.N.S. Wijewardene
From L to R (standing): Mr. N.G. S. D. Kumarasinghe, Mr. R.M.M.K.H. Ranasinghe, Ms. W.A.Y. Weeraarachchi, Ms. M.P.R. Udalagama, Ms. R.M.C.P. Kumari, Ms. K.M.S.D. Wijerathne, Mr. N.D. Premarathna.

Molecular Microbiology & Human Diseases Research Programme

Prof D.N. Magana-Arachchi ***Associate Research Professor***
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Research Project Introduction:

Molecular Microbiology & Human Diseases Project explores microbial genetics, physiology, and diversity across environments like air, water, soil, and the human body. The research examines gene expression, genetic transfers, enzymatic activities, bioactive compounds, microbial communication, and the molecular mechanisms underlying pathogenicity and virulence. This multidisciplinary approach aims to deepen the understanding of microbial roles in human diseases and their environmental interactions, fostering advancements in health and microbial ecology.

Research Activities:

The research comprises multiple sub-projects addressing significant scientific challenges. Studies conducted include, transcriptome analysis of serum from latent tuberculosis patients for biomarker identification, identification of antibiotic-resistant bacteria in selected hot springs, and molecular characterization of microcystin-producing gene clusters in cyanobacteria. Other investigations focused on screening of enzymes from Bacterial isolates from Mahapellassa hot spring and Ussangoda coast, studying microbial diversity at high altitudes (Piduruthalagala, Lotus tower, Kandy, etc), and microorganisms associated with microplastics in Kandy Lake and wastewater systems.

Sub projects; transcriptomic analysis of mycobacteria in serum exosomes from latent tuberculosis patients, enrichment mechanisms of CKDu risk factors in groundwater, and the identification of urinary biomarkers in diabetic and hypertensive CKD patients were completed. The project on balloon flights over the central part of Sri Lanka to detect cometary microorganisms was terminated, as we could not obtain permission from the Meteorological Department and the Civil Aviation Authority of Sri Lanka (CAASL).

Results/Key findings:

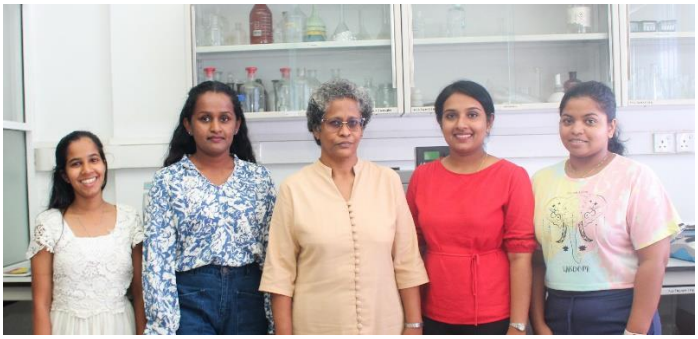
1) Microplastics harbored potential pathogens like *Staphylococcus* and antibiotic-resistant bacteria, identified using 16S rRNA and biochemical methods.

2) Kinniya and Wahawa Hot springs harbored *Pseudomonas* spp. with multi-drug-resistance, against aminoglycosides and fluoroquinolones, confirmed via ARG analysis.

3) In TB study, host-derived differentially expressed genes (DEGs) were identified in both whole blood and exosomes, while exosomes were successful in identifying pathogen-derived DEGs only in LTB

4) Haze events in 2024 showed an 18-fold increase in airborne microbial load compared to 2022, linked to AQI and temperature.

5)*Microcystis aeruginosa* produced high microcystin levels, with the mcyA gene showing the highest frameshift mutation rate, affecting toxin production and cyanobacterial adaptability.



From L to R: Ms. H.P.V.T. Hewawasam, Ms. R.H.W.M.I.C. Ratnayake, Prof. D.N. Magana-Arachchi, Ms. H.M.N.T. Bandara, Ms. H.M.S.A.T. Gunathilaka

Nutritional Biochemistry Research Programme

Prof. Ruvini Liyanage ***Associate Research Professor***
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Research Project Introduction:

Child malnutrition and non-communicable diseases present significant health challenges in Sri Lanka. Income disparities, poor dietary habits, and low nutrition literacy may contribute to these issues. Nutritional Biochemistry program explores the potential of underutilized food sources to enhance nutrition while also investigating hidden causes behind these nutritional disorders.

Research Activities:

This research program aims to improve the nutritional status of individuals in Sri Lanka through multiple studies. One study explored the nutritional and functional benefits of duckweed as an alternative source of protein and bioactive compounds, assessing its potential for various industrial applications. Another study examined the association between early childhood caries (ECC) and nutritional status, oral health status, and oral health-related quality of life in Sri Lankan children aged 4–5 years. Additionally, a collaborative study investigated the food choices, nutrient intake, biomarker validation, and sociodemographic determinants among twins and their offspring using the Sri Lankan twin registry.

Results/Key findings:

The duckweed species investigated were found to possess robust nutritional profiles, especially in proteins, carbohydrates, and vital micronutrients. Low cytotoxicity combined with notable anti-diabetic, anti-obesity, and antimicrobial properties tend to underscore their potential as valuable nutrient dense food source. Nutritional status of children assessed by height-for-age, weight-for-age, and BMI-for-age was negatively correlated ($p \leq 0.05$) with oral health-related quality of life. Age, gender, and ethnicity, significantly impacted energy and micronutrient intake ($p \leq 0.05$) of the studied Sri Lankan twin cohort.

From L to R: *Mr. P.D. Ariyasena, Mr. W.K.S. Bandara, Ms. M.A. Wickramasinghe, Prof. R. Liyanage, Ms. E.M.S.S.K. Ekanayake, Ms. R.H.W.M.I.C. Rathnayaka, Mr. T.W.Y.K. Perera, Ms. S.K. Dantanarayana, Ms. B.A.G.S. Balachandra, Ms. J.M.Y.U. Jayakody*

Plant Taxonomy & Conservation Research Programme

Prof. D.S.A. Wijesundara ***Research Professor***
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Research Project Introduction:
The Plant Taxonomy and Conservation project in Sri Lanka focuses on studying local flora, restoration ecology, promoting sustainable plant use, investigating conservation factors, and conducting mycological research. It also manages the NIFS-Sam Popham Arboretum, a leading site for Assisted Natural Regeneration, playing a key role in preserving biodiversity and supporting sustainable environmental practices. Through these efforts, the project contributes to the conservation and sustainable use of Sri Lanka's plant and fungal species.

Research Activities:
In a study on fungi in Eucalyptus plantations, DNA was extracted and ITS sequencing was conducted for 22 fungal species, with additional sequencing for one potential pathogen, though challenges require a repeat for accuracy. With regard to this work, two manuscripts are being developed: one on trunk pathogens while another on leaf pathogens. Morphological descriptions were documented, and samples were preserved as herbarium materials and cultures. A survey involving 100 people was conducted to gathered ethno-mycological knowledge, contributing to a manuscript. The team participated in a bioinformatics workshop and submitted an accepted manuscript on edible mushrooms to *MycoAsia*. They also contributed to two other publications, and an abstract was presented at RESCON 2024. Undergraduate research explored the antimicrobial properties of duckweed, confirmed the classification of *Ganoderma sichuanense*, and tested duckweed for wastewater treatment. Further research investigated the antifungal properties of tree species against human pathogens. These studies offer significant insights into health and environmental sustainability.

Results/Key findings:
In 2024, significant progress in plant conservation saw 760 specimens collected, including rediscovered possibly extinct species and new records for Sri Lanka. Thirty-eight potential new species were identified, and 43 species were successfully cultivated. Fungal research on Eucalyptus trees in Nuwara Eliya identified 22 fungal species, with DNA sequencing completed for all. One potential pathogen requires further analysis. Additionally, the antifungal properties of an endemic tree against *Candida albicans* were discovered. The year's scholarly output included 7 papers, 4 abstracts, and the collection and identification of 100 mushroom samples.

From L to R (Sitting): Ms. S. Perera, Mr. R.B. Hapukotuwa, Prof. D.S.A. Wijesundara, Dr. H.D. Jayasinghe, Ms. H.K.G.B.M. Premarathne, From L to R (Standing): Ms. N.K. Jinasena, Mr. S.M. Pawuluwage, Ms. U.S.D.S.S. Udugamsooriya, Ms. A.R.G.T.K. Agalawela, Ms. P.G.S.M. Silva, Ms. R.B. Jayasuriya, Ms. R.M.P. Wijesinghe

Primate Biology Research Programme

Prof. Wolfgang Dittus ***Visiting Research Professor***
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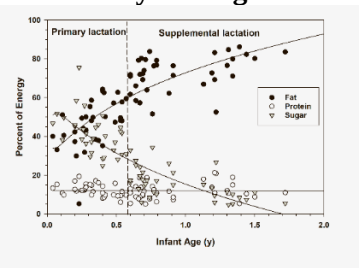
Research Project Introduction:
The research involves observational studies of primates in their natural forest habitats. Its aims are to: (1) establish new knowledge concerning the evolution of social behavior in primates; (2) provide a scientific basis for nature conservation; and (3) disseminate new knowledge through scientific publications and professionally produced documentary films. The popular media and our presentations serve not only to educate and entertain, but also to gain public support for conservation in the local and international communities.

Research Activities:
The socioecology of four primate species at Polonnaruwa: Toque macaques *Macaca sinica,* gray langurs *Semnopithecus p*riam, and purple-faced langurs *S. vetulus*, and the nocturnal loris *Loris lydekkarianus*. Regular census of these four species is the basis for population ecology studies, comparisons among species and groups. Field observations were carried out in 2024 as a continuation of earlier work. The results of these studies are integrated with other long-term data.
In 2024 biochemical analysis of milk: Milk samples collected in earlier years from toque macaques showed a novel adaptation by toque macaques to promote infant survival in the harsh dry zone.
Conservation activates: This involved interventions at Polonnaruwa as well as local government sponsored (GA) activities in promoting nature education and tourism.
An undergraduate student was supported by a stipend and supervised in ecological studies of gray langurs at Polonnaruwa. International and local level presentations were done to promote knowledge and science education.

Results/Key findings:



The composition of primary milk (<7 mo infant age) in toque macaques (TM) was similar to that in other cercopithecines. TM's supplementary milk (7-22 mo), however, differed markedly from the primary milk as energy is provided mostly by an increase in fat, a continuation from the primary phase of high-quality protein, and a decrease in sugar. Detection of essential minerals such as Ca, P, Mg and Zn in supplementary milk provided evidence for tissue synthesis and bone development in TM where the youngest offspring were disadvantaged in resource competition with superior group members in a harsh environment.

From L to R: Mr. C. Pathirathne, Prof. W.P.J. Dittus, Mr. S. Rathnayaka

Rhizobium Project

Prof. Gamini Seneviratne ***Senior Research Professor***
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Research Project Introduction:
The Rhizobium Inoculant Research & Production Facility (RIRPF) was affiliated to the NIFS and commenced in January 2012 under the collaborative and consultative division (CCD) of the NIFS. In 2018, RIRPF was absorbed to the Microbial Biotechnology Unit (MBU) of the NIFS. The main mission of the projects is to produce rhizobial inoculants and to familiarize them in local legume cultivations for minimizing the chemical nitrogen fertilizer (urea) application. Presently NIFS and the Department of Agriculture have a illustrative partnership with Sri Lankan industry disseminating basic research findings to the community.

Research Activities:
Extension programs for the popularization of Rhizobium biofertilizers (RBF) were conducted in the central province in collaboration with the Provincial Agriculture Department (central province). A large number of field demonstrations of vegetable bean were started to educate farmers on the novel method of biofertilizer application that is the use of RBF with Biofilm biofertilizer (BFBF) in legume cultivations in the central province.

Results/Key findings:

It was found that the bean yield with the novel method of biofertilizer application (i.e. RBF + BFBF) was the highest, followed by the yield with the RBF alone, and then the yield with the recommended level of chemical fertilizers for beans. This combined application of the biofertilizers is a world's-first method for legume cultivation.

From L to R: Mr. E.M.H.G.S. Ekanayake, Prof. G. Senevirathna, Mr. R.K.G.K. Kumara, Mr. A.H.M.A.K. Tennakoon

Condensed Matter Physics & Solid-State Chemistry Research Programme

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Research Programme Introduction:
The main focus of the Condensed Matter Physics and Solid-State Chemistry research programme at NIFS is on understanding the fundamental physicochemical processes in scientifically intriguing and technologically important novel materials with potential applications in thin film solar cells, low-cost and high efficiency dye-sensitized solar cells, and applications of various nanostructures in these devices.

Research Activities:
(a) Dye-sensitized solar cells were fabricated with a polyethylene oxide (PEO)-based (gel) polymer electrolyte incorporating the ionic liquid and tetrapropyl ammonium iodide ($Pr_4N^+I^-$) with TiO_2 as the nano filler. The solar cell efficiency and the short-circuit photocurrent were determined. (b) CdS thin semiconductor films were deposited via chemical bath deposition (CBD) method. The transmission electron microscopy imaging was used to determine the particle sizes. The wavelength dependence of the photoconductivity was extracted from photo resistivity data. (c) A low-cost, activated carbon (AC) and sugar-coated stainless-steel counter electrode was successfully fabricated and used in dye-sensitized solar cells. For performance comparison, a similar electrode was fabricated using a FTO glass as the substrate. The photovoltaic performance of dye-sensitized solar cells made with these two counter electrodes were compared with solar cells made with a platinum (Pt) counter electrode using current-voltage measurements.

Results/Key findings:
(a) Dye-sensitized solar cells fabricated with PEO-based (gel) electrolyte, ionic liquid and $Pr_4N^+I^-$ and TiO_2 nano filler enhanced the short-circuit photocurrent to 8.72 mA cm^{-2}. (b) CdS thin films deposited via chemical bath deposition (CBD) method exhibited an optical energy band gap of 2.42 eV. The wavelength dependence of the photoconductivity showed the maximum photoconductivity occurring at 492 nm corresponding to an electrical energy band gap of 2.52 eV, which is greater than the optically measured energy gap of 2.42 eV. (c) Low cost, dye-sensitized solar cells made with activated carbon (AC) and sugar-coated stainless-steel counter electrode showed an efficiency of 7.50%. This was attributed to the high electro-catalytic activity of the composite counter electrode.

From L to R: 1 st Raw - Dr. J. M. K. W. Kumari, Prof. M. A. K. L. Dissanayake, Miss. G. G. S. Sewwandi, Miss. P. U. Sandunika, Prof. G. K. R. Senadeera.
2nd raw - Miss. C. B. D. Kolamunna, Mr. T. M. H. G. Thilakarathna, Miss. W. I. Sandamali, Miss. G. K. G. A. K. Thilakarathne

Energy & Advanced Material Chemistry Research Programme

Prof. Jayasundera Bandara ***Senior Research Professor***
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Research Programme Introduction:
The group focuses on the chemistry and physics of novel materials for converting solar energy into chemical and electrical energies and research topics are photovoltaic technology, specifically dye-sensitized, Q-dot, and polymer solar cells for generating electricity from solar radiation; and the development of artificial chemical devices mimicking photosynthesis to produce various forms of environmentally clean fuels such as green hydrogen via water splitting and the conversion of atmospheric carbon dioxide into fuels.

Research Activities:
The defect engineering method was used to prepare novel catalysts that are active in the infrared region of the solar spectrum and improve light absorption, carrier separation and transport, and surface redox processes. Photocatalytic hydrogen production was explored using defect modified ZrO_2 and Nb_2O_5 materials. Because these catalysts were found to have thermal as well as photocatalytic activities, a mechanistic investigation of the origin of the thermal/IR photon activity was conducted. Furthermore, Ti/TiO_2 NR/NT/$AgBiS_2$ array Schottky junction photoanodes were built, and PEC-assisted hydrogen production was studied. Similarly, a Ti/TiO_2 NR/NT array Schottky junction with a light harvesting CuO photocathode is tested for water splitting. Despite $AgBiS_2$ being an excellent material for the fabrication of thin film solar cells, the solar cells fabricated with $AgBiS_2$ were found to have inferior device performance. This study evaluated the optical and electrical properties of $AgBiS_2$ thin films in order to understand the poor device performance of $AgBiS_2$ thin film solar cells.

Results/Key findings:
The intrinsic surface defects in $AgBiS_2$ that act as recombination centers can be passivated by passivated by a 1-2 nm thin ZnS layer, leading in an improvement in both Voc and Jsc. The OCVD, CV, and EIS analyses revealed that the major recombination loss path is charge recombination through the $AgBiS_2$-electrolyte interface, and that charge recombination can be effectively reduced by carefully controlling the thickness and configuration of the ZnS layer, resulting in an overall increase in solar cell performance. The oxygen-deficient ZrO_{2-x} showed exceptional HER activity under thermal and IR radiations without any electrical biasing or any sacrificial compound being used.

From L to R: Mr. W.M.M.D. Wickramasinghe, Mr. P. K. B. D. Pussewala, Mr. R.P.P.D. Rajakaruna, Mr. E.J.M.T.D.B. Jayasundara Prof. J. Bandara, Mr. D.C. Rajapakse Ms. A.A.W. Tharaka, Ms. H.P.G.D.D. Wijesiri Ms. N.P Wijesiri, Ms. P.M.M.B.A. Mahanthegama

Material Processing & Device Fabrication Research Programme

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Research Project Introduction:
The research programme on Material Processing and Device Fabrication focuses on developing low-cost, high-efficiency dye-sensitized and perovskite solar cells, advancing energy storage supercapacitors using sustainable carbon materials, and enhancing the value of Sri Lankan mineral graphite for advanced applications. By integrating innovative fabrication techniques and cost-effective materials, the project aims to revolutionize renewable energy technologies, making them more accessible and sustainable for future energy needs.

Research Activities:
Our research in 2024 is dedicated to developing low-cost, high-efficiency dye-sensitized solar cells (DSSCs) and advancing energy storage supercapacitors using sustainable materials for enhanced performance and environmental benefits. *Sustainable DSSCs*: Developing activated carbon from rice husk as a renewable, low-cost alternative to expensive platinum electrodes, ensuring efficient electron transfer and long-term stability. *Graphene-Enhanced DSSCs*: Integrating graphene into multilayer photoanodes to improve electron transport in quasi-solid-state DSSCs, ensuring better performance under variable irradiance conditions. *Supercapacitor Separator Engineering*: Investigating the effect of Triton X-100 surfactant concentration on the wettability of polyethylene-based separators to enhance electrolyte absorption and ionic conductivity. *High-Stability Supercapacitors*: Developing biomass-derived activated charcoal electrodes combined with ionic liquid electrolytes, achieving excellent charge-discharge cycle stability and energy storage efficiency.
These advancements contribute to the development of sustainable, high-performance energy conversion and storage technologies, supporting the global transition to renewable energy.

Results/Key findings:
Sustainable DSSCs: Activated carbon from rice husk replaced platinum electrodes, reducing costs by 70% while maintaining efficiency. Graphene-Integrated DSSCs: Stability increased by 20% under variable irradiance due to improved charge transport.

Supercapacitor Separators: Triton X-100 surfactant improved electrolyte absorption, enhancing ionic conductivity. High-Stability Supercapacitors: Biomass-derived activated charcoal electrodes retained 95% capacity after 10,000 cycles.

From L to R: Mr. U. Serasinghe, Ms. D.M.N. Dissanayake, Mr. D.J.D.S. Gamage, Mr. S.L.M.D.K.V. Samarathunga, Mr. U.R.P.T. Rajapaksha, Mr. P.P.B. Gunarathne, A.P.S.P. Jayathilaka, Ms. D.G.D.M. Weerasinghe, Mr. W.V.N.S. Bowaththa, Ms. D.M. Aluthpatabendi, Prof. G.R.A. Kumara, Ms. M.I.U. Weerasinghe

Nanotechnology & Advanced Materials Research Programme

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Research Programme Introduction:
The emerging fields of Nanotechnology and Advanced Materials have created many new materials/devices for recent technological advancements, mainly through introducing novel materials developed from minerals. Sri Lanka possess such useful minerals but target-oriented development aiming those technological advancements is lacking. Hence, these factors are seriously considered in performing our fundamental/advanced but target oriented scientific investigations. Further the National Centre for Advanced Battery Research, a dedicated facility for upgrading our minerals for energy applications, is operated under this programme.

Research Activities:
Value addition to Sri Lankan minerals and related materials for advanced/high-tech/nano-technological applications: A fundamental scientific investigation has been initiated with computational studies followed by preliminary laboratory investigations on Sri Lankan vein quartz (SLVQ), through developing novel purification techniques and preliminary characterization studies for their ultimate utilization in advanced applications for energy generation, storage and utilization. Moreover, the process optimization/scaling-up of our invented battery grade Sri Lankan vein graphite (SLVG) for rechargeable lithium-ion batteries have been performed also aiming with optimization/scaling-up of component fabrication, battery assembling and battery testing.
Development of low-cost and performance enhanced advanced transition metal oxide (TMO) semiconductor materials for energy conversion by low-cost/nano material synthesis techniques: The advanced/fundamental scientific Investigations on dopants and their mechanism in TMO semiconductors have been continued by extending the study to novel CuO based compositions, with the aim of developing other advanced materials components necessary for our rechargeable battery studies.

Results/Key findings:
- Our investigations have added a substantial new knowledge/information on types, occurrence and elimination of impurity associated with SLVQ. Further it revealed its potential for high energy-density rechargeable batteries, for which no proper solution has yet been found elsewhere.
- Process optimization/scaling-up study successfully demonstrated the feasibility of scaling-up of developed purification process for SLVG, marking a significant step towards bridging gaps existing between laboratory achievements and industrial requirements.
- Investigations with CuO created significant knowledge on minimizing internal resistant, hence improving efficiency of rechargeable batteries. The developed CuO, p-type Cu_2O and n-type Cu_2O revealed their potentiality for next-generation high-performance batteries.

From L to R: Mr. W.T.R.S. Fernando, Mr. W.G. Jayasekara, Ms. H.M.H.D.K. Naranpanawa, Dr. H.W.M.A.C. Wijayasinghe, Mr. S.M.M.U. Sivirathna

Natural Products Research Programme

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Research Project Introduction:
This research explores natural products for agricultural and human health applications, focusing on fungal and plant extracts, bioactive compounds, and LC-MS profiling. It aims to identify potential uses of these extracts in disease management and crop protection. Additionally, the study investigates postharvest disorders in guava, mango, and avocado, assessing their causes and developing effective management strategies to enhance fruit quality and shelf life. Findings from this research will contribute to sustainable agriculture and improved human health.

Research Activities:
Research activities of the Natural Products Project of the NIFS are mainly on the following four areas.

- Investigation of extracts from plant sources for use in agriculture and human health and LC-MS profiling of bioactive extracts
- Investigation of extracts from epiphytic and endophytic fungi, for use in agriculture and human health
- Cause and control of postharvest fungal diseases and disorders of edible and export-oriented fruits

Results/Key findings:
An endophytic fungus isolated from *Centella asiatica*, was identified as *Muyocopron laterale* through molecular means. The fungus was cultured in a potato dextrose broth medium. Chromatographic separation of the combined EtOAc extract yielded two new polyketides, named muyokopyrone (**3**) and muyokoenone (**5**), along with four known compounds, austdiol (**1**), 4-(hydroxymethyl)-3-methoxy-5-methylcyclopent-2-enone (**2**), eugenitin (**4**) and 6-methoxymethyl eugenin (**6**). The fermentation broth showed necrotic and wilting symptoms when sprayed on the leaves of cucumber (*Cucumis sativus*) plants. Compound **1** inhibited root elongation of lettuce seeds with an IC50 value of 5.38 μg/mL while compounds **1** and **2** showed necrotic symptoms in the leaf puncture assay.

From L to R: Mr. S. Nanayakkara, Ms. N. Wijerathne, Ms. V. Herath, Ms. A. Kahandawa, Dr. N. P. Piyasena, Prof. N.K.B Adikaram, Prof. U.L.B. Jayasinghe, Mr. D.S. Jayaweera, Mr. H.A.K.D. Premasiri, Mr. Y.G.A.D.K. Bandara, Ms. V. Gunethilake, Ms. K. Sylvester, Ms. A. Rathnayake, Ms. H. Abeysinghe, Mrs. S.A.D Chathurangi, Ms. L. Wathsala

Computer Science, Mathematics and Statistics Research Programme

Prof. S.R. Kodituwakku ***Research Professor***
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Research Project Introduction:
The advancement of scientific knowledge in Computer Science, Mathematics, and Statistics is prioritized in this research program, with contributions made to both national and global development. Innovation and progress are driven through rigorous exploration and discovery. A diverse range of areas, including Software Engineering, Generative AI, Artificial Intelligence, Image Processing, and Machine Learning, is focused on to foster advancements that address real-world challenges and push the boundaries of technology.

Research Activities:
Project 1: This study explores the investigation and modeling of algorithms for software engineering processes using artificial intelligence and machine learning techniques. A novel AI-based algorithm is being developed to enhance the system analysis and design phase, addressing conceptual challenges in software modeling. The research focuses on constructing a decision-support matrix that offers suggestions through discriminative AI methodologies. Currently, an NLP-based system is under development, with refinements being made using machine learning algorithms. Additionally, a custom dataset incorporating real industry data is being created to train the module effectively.

Project 2: This research focuses on the automatic conversion of wireframe images into interactive UI designs and code using Generative AI and Deep Learning techniques. The primary goal is to enhance the automation and efficiency of UI design and coding processes in web and software development, enabling faster, more accurate, and scalable solutions for creating functional user interfaces. Since no suitable database is available, a new database is being developed. A cGAN is being used to transfer wireframes into UI images. During this experiment, the appropriate architecture, parameters, and optimizers are being determined.

Results/Key findings:
In Project 1: Currently, an NLP-based system is being developed. Based on the test results of the NLP model, further refinement requirements with ML algorithms were identified. A custom dataset with real industry data is being developed to train the module. A hybrid approach of Generative AI algorithms and Discriminative AI algorithms would create a better framework to identify Non-functional Requirements (NFRs) from SRS and suggests a novel Recurrent Neural Network (RNN) model to improve the accuracy and performance.
In Project 2, Conditional Generative Adversarial Networks (cGANs) were experimented to transform wireframes into User Interface (UI) designs. The experimental results indicate that UI designs can be effectively generated, significantly accelerating the design process and enhancing productivity. Quantitative evaluation using SSIM (0.76) and PSNR (27.6) further validates the capability of the proposed method in producing high-quality UI designs.

***From L to R**: Mr. W. A. A. J. J. Weerasuriya, Mr. A.E. Gunasekaran, Prof. S. R. Kodituwakku, Mr. K.G.S.N. Samaraweera, Mr. A. K. Gamage, Ms. B. N. Madumithili*

Earth Resources and Renewable Energy (ER & RE) Research Programme

Prof. N. Deepal Subasinghe ***Research Professor***
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Research Programme Introduction:

The ER & RE research programme aims to boost renewable energy in Sri Lanka by focusing on local resources. With geothermal and mineral resources largely unexplored, there's significant potential for national growth. Subprojects explore geothermal energy, rock mineralogy, petrology, and radon mapping. A pioneering thermoelectricity initiative works to improve efficiency and innovate new materials for power generation. This approach looks to unlock sustainable energy solutions for the country's future.

Research Activities:

Sri Lanka's geothermal potential for power generation is being explored through a thorough investigation that combines geophysical, geochemical, and geological methods. Researchers use techniques such as resistivity, magnetic, and electromagnetic surveys to map subsurface features essential for tapping geothermal energy. Detailed petrological and mineralogical studies of local rocks help assess their origin, economic value, and scientific significance.

In parallel, efforts are focused on developing thermoelectric materials that directly convert heat into electricity via the Seebeck effect. These materials, crucial for electronic and electrical applications, are being sourced from abundant local resources like graphite, mica, and quartz. Both theoretical and experimental studies are conducted to understand heat transfer mechanisms and their impact on thermoelectric performance, with a particular focus on composite materials used in EV battery packs.

Results/Key findings:

- Proposing to enhance the hot water yield in low enthalpy geothermal systems in Sri Lanka
- Reviewing the genesis, classification, tectonic setting and economic potential of granitic pegmatites
- Exploring the formation of Sri Lankan rock types and the various lithological regions.
- Investigating the mechanisms of heat transfer, addressing practical constraints, and identifying factors that cause discrepancies from theoretical models. Enhancing heat transfer efficiency in electric vehicle applications
- Creating innovative materials with improved heat transfer and electrical insulation properties.

Ms. A.M.A.M Abeysinghe, Ms. M. G. R. Shyamamala, Prof. N.D Subasinghe, Mrs. M.P. Thilakarathna, Ms. D.R.T.L Harischandra.

Water Quality Research Program

Rohan Weerasooriya ***Research Professor***
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Research Project Introduction:
Water salination in Sri Lanka and the globe as well is a severe drinking water stress problem. In Sri Lanka over 3.5 million people, mostly in the dry zone is affected by this issue. Additionally, detection of water contaminants in situ is also a pressing need. Fundamental problems associated with wastewater treatment of rubber industry were also examined. The research results require transferring to the community to Ministry of Water Supply & Estate Infrastructure Development and the Ministry of Health via the Ministry of Science and technology.

Research Activities:
Our findings reveal significant challenges in groundwater contaminations, including salinity, hardness, fluoride, and nitrate. The two water types in the NCP were mainly of the Ca-HCO_3, Na·Ca-HCO_3. The elevated salinity, hardness and fluoride resulted from chemical weathering, while the presence of NO_3^- was mainly anthropogenic. We synthesized controllable carbon spheres (CS) through chemical vapor deposition to desalination. In wastewater research, for methylmercury detection, we utilized gold nanoparticle-embedded metal-organic frameworks. An electrochemical sensor, Fe_3O_4@SiO_2–Au/GCE, demonstrated rapid SARS-CoV-2 S-protein detection. The downstream water quality in the Kelani River Basin notably improved during the lockdown, underscoring the impact of restricted human activities on environmental conditions. The structure, composition, source and spatial distribution of the dissolved organic matter of two kinds of groundwater samples collected from dug well and tube well in the NCP during the wet season were determined.

Results/Key findings:
Presently, evidence on carbon pentagon formation in hexagonal graphitic structures remains inconclusive. Ongoing research, utilizing NEXAFS measurements, aims to precisely examine pentagon defects, validating the proposed carbon pentagon formation mechanism. A reverse osmosis system, coupled with a CS pretreatment process, emerges as the most suitable method for treating high-salinity groundwater in numerous regions of the NCP. Additionally, a novel electrochemical sensor, Fe_3O_4@SiO_2–Au/GCE can detect SARS-CoV-2 S-protein rapidly, featuring a broad dynamic range (0.1 ng/mL to 10 μg/mL) and a low detection limit (4.78 pg/mL).

From L to R: Prof. R. Weerasooriya, Dr. Z. Wu, Prof. Xing Chen, Prof Yu Huang, Ms. S.P. Hemachandra, Ms. P.M.C.J. Bandara, Mr. L. Senarathne, Mr. S. M. L. M. B. Senarathne, Ms. R.M.K.M.N. Jayathilaka, Ms. W.M.I.T. Lahirumali, Ms. P.K.K. Pathirana, Ms. S.H.U. Hansani, Ms. H.M.S.N. Deegala, Mr. S.A. Witharana, Mr. K.M. S. A. Gunawardana, Ms. A.W.M.P.C.A. Udugama, Ms. E.G.V.P. Chandrasekara, Ms. H.A.S.M. Senarathne., Ms.W. K. K. N. S. Wellalagoda., Ms. S.D.S.E. Jayathissa, Ms. I.M. Jayalath, Mr. K.M.N.K.B. Kuruppu, Ms. B.V.N. sewwandi, Ms. N. Mudannayake, Ms. K.M.S.S. Dissanayake

Environmental Science Research Program:

Material Development and Pollutant Remediation

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Research Project Introduction:

This project focuses on the design and synthesis of new materials using green chemical principles for the efficient removal of pollutants from water, soil, and air. By addressing the challenges of contaminant adsorption and material regeneration, the research seeks to provide scalable low-cost technologies for real-world environmental remediation sustainably.

Research Activities:

This research explores the synthesis and structural impact of boron incorporation in Boro-Alumino ZSM-5 and Faujasite zeolites, enhancing Lewis acidity and catalytic activity. Palladium addition is examined for synergistic effects. Characterization via PXRD, SEM, FTIR, and Raman spectroscopy confirms boron integration without altering zeolite type but affecting crystallinity. Faujasite synthesis using a microwave-assisted method (900 W, 110°C) reveals morphology variations with increasing B/Al ratios. Additionally, ZnO nanostructures, including nanorods and nanoflowers, are synthesized and confined within ZSM-5 zeolites for N_2O gas sensing. Two encapsulation techniques are explored, with material characterization conducted via SEM, PXRD, Raman, and FTIR. A custom Electrochemical Impedance Spectroscopy (EIS) setup was developed for pollutant sensing studies. Further, copper-modified Zeolite Y demonstrates promising catalytic activity for phenol and chlorophenol degradation, with HT-Zeolite CuY outperforming MW-Zeolite CuY. This research proposes innovative use of zeolite-based catalysts for environmental applications, including gas sensing and pollutant removal.

Results/Key findings:

This research successfully synthesized boron-modified Faujasite and Boro-Alumino ZSM-5 zeolites, demonstrating that boron incorporation enhances Lewis acidity and alters active sites without changing the zeolite type but affecting crystallinity. Palladium addition showed potential synergistic effects for improved catalytic activity. ZnO nanostructures confined within ZSM-5 via wet impregnation proved effective for N_2O gas sensing. Characterization via PXRD, SEM, FTIR, and Raman confirmed structural integrity. Additionally, HT-Zeolite CuY exhibited superior phenol degradation (79%) over MW-Zeolite CuY, with further improvements by modifying reaction conditions. These findings highlight the potential of boron-modified zeolites and ZnO confinement for environmental applications.

From L to Right: Ms. U.G.W.S. Bowaddeniya, Ms. T.G.M. Mihidula, Mr. M.N.V.C. Fernando, Mr. M.M.A.K. Mannapperuma, Dr. I.P.L. Jayarathne, Mr. J.M.S.G.B. Navarathne, Mr. N.P. Athukorala, Ms. M.A.K. Madhumekala

SECTION 2 – RESEARCH PERFORMANCE IN YEAR 2024

PUBLICATIONS IN JOURNALS

BIOLOGICAL SCIENCES RESEARCH DIVISION

Evolution, Ecology and Biodiversity Research Programme

1. Satkunanathan, A., and **Benjamin, S.P.** (2024). Multilocus genetic and morphological phylogenetic analysis: Unveiling a new genus and species in the Tribe Nannenini of jumping spiders (Araneae, Salticidae). *Zoologica Scripta*, 53, p.688-711. [SJR Quartile: Q1]. http://www.doi.org/10.1111/zsc.12660

2. **Benjamin, S.P.** (2024). A review of some crab spider species of the genus *Borboropactus* Simon, 1884 (Araneae: Thomisidae) with descriptions of two new species. *Revue suisse de Zoologie*, 131(2), p.267-277. [SJR Quartile: Q3]. http://www.doi.org/10.35929/RSZ.0125

3. **Benjamin, S.P.** (2024). Tetragnathid spiders from Sri Lanka: description of two new species (Araneae: Tetragnathidae). *Zoonova*, 35, p.1-11. [SJR Quartile: N/A]. http://www.doi.org/10.5281/zenodo.13484738

4. **Benjamin, S.P.,** and Tharmarajan, M. (2024). Species of the genus *Meotipa* Simon, 1895 with descriptions of two new species from Sri Lanka and one from China (Araneae: Theridiidae). *ZooNova*, 39, p.1-26. [SJR Quartile: N/A]. https://zenodo.org/records/14187906

5. **Benjamin, S.P.** (2024). Palp-footed spiders of Sri Lanka with descriptions of six new species (Araneae: Palpimanidae). *ZooNova - Occasional papers in Zoology*, 40, p.1-23. [SJR Quartile: N/A].https://zoonova.afriherp.org/documents/Benjamin%202024%20ZN40%20Sri%20Lanka%20Palpimanidae.pdf

Food Chemistry Research Programme

1. Gunarathna, K.M.R.U., Wijenayake, J.M.U.S., Yalegama, L.L.W.C., **Marikkar, J.M.N.,** and Jun Lu (2024). Exploring the prebiotic characteristics of crude polysaccharides from coconut testa flour: A comparative analysis of local cultivar. *Heliyon*, 10, 30256. [SJR Quartile: Q1]. https://doi.org/10.1016/j.heliyon.2024.e30256

2. Gunarathna, K.M.R.U., Ulpathakumbura, B.S.K., **Marikkar, J.M.N., Jayasinghe, L.,** and Jun Lu (2024). Coconut testa flour sub-fractions: correlation between FTIR spectral data and α - glucosidase inhibitory activities. *Foods*, 13(21), 3414, p.1-11. [SJR Quartile: Q1]. http://www.doi.org/10.3390/foods13213418

3. Fahmidah, H.F., Fathima Izfah, Z., Ulpathakumbura, B.S.K., **Jayasinghe, L**., **Marikkar, J.M.N.,** and Muneeb, M., Arshad, M., Kheraif, A.A.A., Husain, F.N., & Adil, M., (2024). Characterization of oils and defatted residues of *Terminalia catappa* L. seed kernels of two varieties. International Journal of Food Properties, 21(1), p.30-43. [SJR Quartile: Q2]. https://doi.org/10.1080/10942912.2024.2426666

4. Zen, N.I.M., Zaidan, U.H., Abdul Gani, S.S., Shamshi, S., Hassan, M., and **Marikkar, J.M.N.** (2024). Exploring the therapeutic potential of Malaysian *Stevia rebaudiana* Bertoni leaves essential oils: a comprehensive study on cell viability and biological effects for topical

applications. *Journal of Medicinal Plants and By-products*, p.1-11. [SJR Quartile: N/A]. http://www.doi.org/10.22034/JMPB.2024.361730.1541

5. Wijesekera, M.M.T., Fahmidah, H.F., Ulpathakumbura, B.S.K., **Jayasinghe, L.,** and **Marikkar, J.M.N.** (2024). Nutritional composition, anti-oxidative, and anti-hyperglycemic potentials of the kernels of two varieties of *Terminalia catappa* L. *The Journal of Agricultural Sciences - Sri Lanka*, 19(2), p.507–516. [SJR Quartile: Q3].http://www.doi.org/10.4038/jas.v19i3.10247

6. Kumari, K.G.S.N., Ulpathakumbura, B.S.K., Lai, O.M., Gunarathna, K.M.R.U., and **Marikkar, J.M.N**. (2024). Creamed coconut testa and creamed coconut as substitutes for coconut milk in culinary uses. *Coconut Research and Development Journal*, 40, p.31-39. [SJR Quartile : N/A]. http://www.doi.org/10.37833/cord.v40i.483

7. Dilrukshi, H.M.W., Ulpathakumbura, B.S.K., Gunarathna, K.M.R.U., **Iqbal, M.C.M.,** Lai, O.M., and **Marikkar, J.M.N.** (2024). Evaluation of stevia leaf (Stevia rebaudiana Bertoni) powder as sugar-substitute in cashew nut fortified cookies. *Ceylon Journal of Science*, 53(4), p.599-608. [SJR Quartile: N/A]. https://doi.org/10.4038/cjs.v53i4.8326

Microbial Biotechnology Research Programme

1. **Premarathna, M.,** and **Seneviratne, G.** (2024). Want to be a Martian? Be a photoautotrophic human. *Baltica*, 37(1), p.1-5. [SJR Quartile: Q4]. https://www.balticajournal.com/index.html

2. Xu, Z., Li, Y., Xu, A., Xue, L., Soteyome, T., Yuan, L., Ma, Q., **Seneviratne, G.,** Hong, W., Mao, Y., Kjellerup, B.V., and Liu, J. (2024). Differential alteration in *Lactiplantibacillus plantarum* subsp. *plantarum quorum*-sensing systems and reduced *Candida albicans* yeast survival and virulence gene expression in dual-species interaction. *Microbiology Spectrum*, 12(6), e00353-24, p.1-26. [SJR Quartile: Q1]. http://www.doi.org/10.1128/spectrum.00353-24

3. Xu, Z., Li, Y., Xu, A., Soteyome, T., Yuan, L., Ma, Q., **Seneviratne, G.,** Li, X., and Liu, J. (2024). Cell-wall-anchored proteins affect invasive host colonization and biofilm formation in *Staphylococcus aureus*. *Microbiological Research*, 285, 127782, p.1-10. [SJR Quartile: Q1]. https://doi.org/10.1016/j.micres.2024.127782

4. Xu, Z., Zhong, F., Xu, A., Luo, Y., Soteyomo, T., **Seneviratne, G.,** Yuan, L., and Liu, J. (2024). Development, evaluation and application of propidium monoazide (PMA) based methodologies on viable cell quantification of *Pediococcus acidilactici* in rice noodles products. *Food Control*, 168, 110889, p.1-13. [SJR Quartile: Q1]. https://doi.org/10.1016/j.foodcont.2024.110889

5. Rathnathilaka, T., **Premarathna, M.,** Madawala, S., and **Seneviratne, G.** (2024). Biofilm biofertilizer enhances bioactive compounds including antioxidant activity in hybrid rice grains. *Ceylon Journal of Science*, 53(4), p.463-470. [SJR Quartile: N/A]. https://doi.org/10.4038/cjs.v53i4.8366

6. Ekanayake, S.N.B., **Premarathna, M.,** Pathirana, A, and **Seneviratne, G.** (2024). Biofilm biofertilizer application in paddy cultivation: pioneering studies in Sri Lanka. *Journal of Dry Zone Agriculture*, 10(1), p.56-107. [SJR Quartile: N/A]. http://www.doi.org/10.4038/jdza.v10i1.89

Microbiology & Soil Ecosystem Research Programme

1. Kathirgamanathan, M., Weerasinghe, S., Bowange, T.K., Abayasekara, C.L., Kulasooriya, S.A., and **Ratnayake, R.R.** (2024). Evaluation of co-culture of cellulolytic fungi for enhanced cellulase and xylanase activity and saccharification of untreated lignocellulosic material. *Folia Microbiologica*, p.1-9. [SJR Quartile: Q2].https://doi.org/10.1007/s12223-024-01183-y

2. Bowange, T.K., Weerasinghe, W.M.C.S., Yakandawala, D.M.D., and **Ratnayake, R.R.** (2025). A provisional checklist of cyanobacteria in Sri Lanka. *Ceylon Journal of Science*, 54(1), p.347-406. [SJR Quartile: N/A].https://doi.org/10.4038/cjs.v54i1.8370

Molecular Microbiology and Human Diseases Research Programe

1. Weerarathne, W.B.C.P., Sewwandi, M., **Wijayasinghe, H.W.M.A.C.,** Madegedara, R.M.D., **Vithanage, M.,** and **Magana-Arachchi, D.N.** (2024). Impact of air quality on the health of present-day workers in an Asbestos roof manufacturing industry, Sri Lanka. *Environmental Geochemistry and Health*, 46, 201, p.1-16. [SJR Quartile: Q1]. https://doi.org/10.1007/s10653-024-01973-w

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Plant Taxonomy & Conservation Research Programme

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CHEMICAL AND PHYSICAL SCIENCES RESEARCH DIVISION

Condensed Matter Physics & Solid-State Chemistry Research Programme

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Energy & Advanced Material Chemistry Research Programme

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Material Processing and Device Fabrication Research Programme

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Natural Products Research Programme

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EARTH AND SPACE SCIENCES RESEARCH DIVISION

Earth Resources and Renewable Energy Research Programme

1. Bandara, D., Smit, J., Christiansen, R., **Subasinghe, N.D.,** Wohnlich, S., Heinze, T. (2024). Enhancing the hot water yield in low enthalpy geothermal systems in Sri Lanka. *Renewable Energy*, 235, 121386, p.1-8. [SJR Quartile: Q1]. https://doi.org/10.1016/j.renene.2024.121386

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ENVIRONMENTAL SCIENCE RESEARCH DIVISION

a. Water Quality Research

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PATENTS

Patents applied:

1. National Institute Fundamental Studies. (Filing Date :2024-12-30). *Method of purifying Sri Lankan vein graphite using single-step phosphoric acid leaching; Eco friendly and low-cost approach*, Sri Lanka.

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ABSTRACTS

BIOLOGICAL SCIENCES RESEARCH DIVISION

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Nutritional Biochemistry Research Programme

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Plant taxonomy and Conservation Research Programme

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CHEMICAL AND PHYSICAL SCIENCES RESEARCH DIVISION

Computer Science, Mathematics and Statistics Research Programme

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Condensed Matter Physics & Solid-State Chemistry Research Programme

1. Sivirathna, S.M.M.U., **Kumari, J.M.K.W.,** Fernando, W.T.R.S., Naranpanawa, H.M.H.D.K., **Wijayasinghe, H.W.M.A.C.,** and Wijewardane, H.O. (2024). Development of PVDF polymer-based gel polymer electrolyte for lithium-ion batteries. *Applied Sciences Undergraduate Research Sessions ASURS 2024, Rajarata University of Sri Lanka*.

2. Anuththara, H.N., Aberathne, E.M.K.K., Wijewardane, H.O., and **Kumari, J.M.K.W.** (2024). Fabrication, optimization and characterization of natural dye sensitized solar cells using night jasmine flower as a natural sensitizer. *International Conference on Applied and Pure Sciences, 2024 Faculty of Science, University of Kelaniya, Sri Lanka*.

3. Abeysinghe, S.R.G.L., **Kumari, J.M.K.W.,** Weerasinghe, M.I.U., **Kumara, G.R.A.,** and Dahanayake, U. (2024). Development of Activated Coconut Shell Charcoal and Carbon Nanotubes Composite as Counter Electrode for Dye-Sensitized Solar Cell Applications. *Rajarata University of Sri Lanka, ASURS 2024 - Applied Sciences undergraduate Research Sessions*.

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6. **Kumari, J.M.K.W., Dissanayake, M.A.K.L., Senadeera, G.K.R.,** Careem, M.A., and Arof, A.K. (2024). PEO and PVdF-HFP blend polymer, electrospun nanofibers-based gel electrolyte for dye sensitized solar cell applications. *18th Asian Conference on Solid State Ionics Conference (ACSSI - 2024) at Chennai, India*.

7. **Senadeera, G.K.R., Kumari, J.M.K.W.,** and **Dissanayake, M.A.K.L.** (2024). Effect of polypyrrole conducting polymer on PEO-based gel electrolyte for dye sensitized solar cell applications. *18th Asian Conference on Solid State Ionics Conference (ACSSI - 2024) at Chennai, India*.

8. Sivirathna, S.M.M.U., **Kumari, J.M.K.W.,** Fernando, W.T.R.S., **Wijayasinghe, H.W.M.A.C.,** and Wijewardane, H.O. (2024). Development of PVDF polymer-based gel electrolyte for Lithium-ion batteries. *18th Asian Conference on Solid State Ionics Conference (ACSSI - 2024) at Chennai, India*.

9. Sarangika, H.N.M., Egodawaththa, E.G.O.D., Gunathilaka, H.M.B.I., **Dissanayake, M.A.K.L., Senadeera, G.K.R.,** Sangeeta Gosh, and Chinmoy Bhattacharya (2024). WO_3 nanostructured thin films prepared by in situ hydrothermal method as a low-cost, multifunctional material. *18th Asian Conference on Solid State Ionics Conference (ACSSI - 2024) at Chennai, India*.

Energy & Advanced Material Chemistry Research Programme

1. **Bandara, J.,** and Rajakaruna, R.P.P.D. (2024). The effect of a thin ZnS passivation layer on q-dot $AgBiS_2$ for enhancing the solar cell performance. *Young Scientists' Conference on Multidisciplinary Research-2024, National Institute of Fundamental Studies, Sri Lanka*.

2. **Bandara, J.,** and Rajapakse, D.C. (2024). Beyond ultraviolet: oxygen-vacant ZrO_2-x for visible-ir-light-driven water splitting. *Proceedings of the Postgraduate Institute of Science Research Congress, Sri Lanka, University of Peradeniya*.

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Material Processing and Device Fabrication Research Programme

1. Ravindran, N.S., Wijayarathne, W.M.K.B.N., Chandrika, R.P., Medagedara, A.D.T., **Kumara, G.R.A,** and Bandara, T.M.W.J. (2024). Development of DSSC Counter Electrode Using PEDOT: PSS/GO Nanocomposite. *SLIIT International Conference on Engineering and Technology, Sri Lanka Institute of Information Technology*.

2. Jayathilaka, A.P.S.P, Bambaradeniya, R.R.M.M.N.B, **Kumara, G.R.A,** and Medagedara, A.D.T (2024). Optimization of sulfuric acid electrolyte concentration for coconut shell charcoal-derived activated carbon-based supercapacitors. *International Postgraduate Research Conference (IPRC), University of Kelaniya*.

3. Udayantha, U.L.I., Jayalath, J.A.C.P., **Kumara, G.R.A,** Medagedara, A.D.T., and Bandara, T.M.W.J. (2024). Aprotic electrolyte and Reduced Graphene Oxide electrodes-based supercapacitors, performance dependence on current collectors. *Proceedings of the Postgraduate Institute of Science Research Congress, University of Peradeniya*.

4. Dissanayaka, S.M.B., and **Kumara, G.R.A.** (2024). Capacitance improvement in the presence of fractal Graphene: Activated carbon composite by improving the electrolyte wettability. *Proceedings of the Postgraduate Institute of Science Research Congress, University of Peradeniya*.

5. Bambaradeniya, R.R.M.M.N.B., Jayathilaka, A.P.S.P., Medagedara, A.D.T., and **Kumara, G.R.A.** (2024). Feasibility of coconut shell flakes derived Activated carbon electrodes for

supercapacitors. *Proceedings of the Postgraduate Institute of Science Research Congress, University of Peradeniya*.

6. Rathnayake, P.T., Medagedara, A.D.T., Chandrarathne, E.D.G.K., Mahanama, G.D.K., and **Kumara, G.R.A.** (2024). Coconut water-electrolyte for biomass derived Activated Carbon supercapacitors. *Peradeniya University International Research Symposium and Exposition 2024*.

7. Chandrarathne, E.D.G.K., Weerasinghe, M.I.U., Rathnayake, P.T., Mahanama, G.D.K., and **Kumara, G.R.A.** (2024). Fabrication of Dye-Sensitized solar cells based on natural pigments extracted from the mixture of Betel, Areca Nut, and Calcium Carbonate. *Peradeniya University International Research Symposium and Exposition 2024*.

8. Abeysinghe, S.R.G.L., **Kumari, J.M.K.W.,** Weerasinghe, M.I.U., **Kumara, G.R.A.,** and Dahanayake, U. (2024). Development of Activated Coconut Shell Charcoal and Carbon Nanotubes Composite as Counter Electrode for Dye-Sensitized Solar Cell Applications. *ASURS 2024 - Applied Sciences undergraduate Research Sessions, Rajarata University of Sri Lanka*.

9. Weerasinghe, M.I.U., Ratnayake, R.M.A.M.B, **Kumara, G.R.A.,** and Bandara, T.M.W.J. (2024). A Low-cost and Sustainable Alternative for Counter Electrode Material in Dye-Sensitized Solar Cells: Activated Palmyra Shell Charcoal. *Faculty of Graduate Studies, University of Sri Jayewardenepura, iCMA 2023*.

Nanotechnology and Advance Materials Research Programme

1. Sivirathna, S.M.M.U., **Kumari, J.M.K.W.,** Fernando, W.T.R.S., Naranpanawa, H.M.H.D.K., **Wijayasinghe, H.W.M.A.C.,** and Wijewardane, H.O. (2024). Development of PVDF polymer-based gel polymer electrolyte for lithium-ion batteries. *Applied Sciences Undergraduate Research Sessions ASURS 2024, Rajarata University of Sri Lanka*.

2. Fernando, W.T.R.S., Amaraweera, T.H.N.G., Wijesundara, R.P., and **Wijayasinghe, H.W.M.A.C.** (2024). Comparison of the electrochemical performance of p-Cu_2O and n-Cu_2O anode materials synthesized by electrodeposition technique for rechargeable lithium-ion batteries. *Proceedings of the Postgraduate Institute of Science Research Congress, University of Peradeniya.*

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Natural Products Research Programme

1. Jayasinghe, Y.A., Peiris, P., Pradeep, R., Jayawickrama, S.M., Senevirathna, K., Piyarathne, N., Ariyasena, T.C., Jayawardena, N.U., **Jayasinghe, L., Weerasooriya, R.,** and Jayasinghe, R. (2024). Toxic Metal Analysis of Sri Lankan *Areca catechu* Varieties. *Proceedings of the Sri Lanka Dental Association's Annual Scientific Sessions 2024, Sri Lanka Dental Association*.

2. Poorvijeyanth, S., Siriwardhane, U., Kalinga, J., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Antioxidant, toxicity, and enzyme-inhibitory potential of *Annona muricata*, *Persea americana* and *Phyllanthus acidus*. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

3. Premasinghe, A.N., Bandara, Y.G.A.D.K., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Comparative study of the bioactivity of methanolic leaf extracts from *Anacardium occidentale* L. and *Morus alba* L *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

4. Gamage, D.U., Wekadapola, W.W.M.T.R., Bandara,Y.G.A.D.K., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.**, and **Jayasinghe, L.** (2024). Bioactivity studies of *Nyctanthes arbor-tristis*. Linn. flowers as potential sources of traditional medicine. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

5. Mallawa Arachchi, M.A.K.H., Siriwardhane, U., Kalinga, J., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Determination of bioactivity potential of *Acronychia pedunculata*, *Alpinia calcarata* Roscoe, and B*acopa monnieri* grown in Sri Lanka. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

6. Jayesekara, J.M.P.A., Bandara, Y.G.A.D.K., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Exploring the Diverse Selected Bioactivities of *Terminalia catappa* L., *Plectranthus amboinicus*, and *Cedrus deodara* Plants Extracts. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

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8. Premasinghe, C.N., Kalinga, J., Siriwardhane, U., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). In vitro bioactive potential of leaf extracts from *Hyptis capitata*, *Plectranthus zaterhendi* and *Bauhinia variegata*. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

9. Bandara, W.M.U.H., Siriwardhane, U., Kalinga, J., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Evaluation of the bioactive potential of *Argyreia populifolia* leaves extract: assessing antioxidant, cytotoxic and phytotoxic properties. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

10. Premasiri, H.A.K.D., Siriwardhane, U., Kalinga, J., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Antioxidant, antidiabetic and cytotoxic activities of methanolic extracts of *Zingiber officinale* and *Zingiber zerumbet*. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

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12. Bowaddeniya, U.G.W.S., Kalinga, J., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Bioactivity of methanolic leaf extracts of *Pterocarpus marsupium* and *Sauropus androgynus*. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

13. Abeywardhana, R.G.C.L., Siriwardhana, U., Kalinga, J., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Nature's hidden potentials: bioactivity assessments of *Commelina benghalensis*, *Erythrina variegata* L. and *Symplocos cochinchinensis*. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

14. Withanawasam, T.B., Siriwardhane, U., Kalinga, J., **Piyasena, N.P., Marikkar, J.M.N., Adikaram, N.K.B.,** and **Jayasinghe, L.** (2024). Bioactivity studies of *Eugenia uniflora* L. and *Vitex negundo* L. *Proceedings of the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies, Kandy*.

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17. Bandara, Y.G.A.D.K., Siriwardhane, U., Kalinga, J., **Piyasena, N.P., Adikaram, N.K.B.,** and **Marikkar, J.M.N. Jayasinghe, L.** (2024). Comparative bioactivity assessment of *Garcinia mangostana* pericarp and *Gymnema sylvestre* leaves: antioxidant potential, enzyme inhibition and cytotoxicity. *Proceedings of the RESCON, PGIS, University of Peradeniya*.

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21. Fahmidah, H.F., **Marikkar, J.M.N.,** and **Jayasinghe, L.** (2024). Phenolic and flavonoid contents and ferric reducing antioxidant power of different solvent extracts of defatted seed kernel from *Terminalia catappa* L. fruits. *In Proceedings of the RESCON 2024, University of Peradeniya,*.

22. Fahmidah, H.F., **Marikkar, J.M.N.,** and **Jayasinghe, L.** (2024). Determination of Brine Shrimp Lethality of Different Solvent Extracts of *Terminalia catappa* L. Fruits' Seed Kernel. *INSIGHT International Research Conference 2024, Colombo*.

Earth Resources and Renewable Energy Research Programme

1. Shyamamala, M.G.R, and **Subasinghe, N.D.** (2024). Impact of thermoelectric panels on energy harvesting and thermal management of a rechargeable battery pack. *Proceeding of the Young Scientists' Conference on Multidisciplinary Research 2024, National Institute of Fundamental Studies, Kandy.*

2. Abeysinghe, A.M.A.M., Thilakarathna, M.P.S.P.K, and **Subasinghe, N.D.** (2024). Geochemical characterization and geothermometry of the Kapurella geothermal spring, Sri Lanka. *Proceedings of the Postgraduate Institute of Science Research Congress, University of Peradeniya, Sri Lanka*.

3. Kahawaththe, K.G.D.T.B., **Subasinghe, N.D.**, Narangammana, L.K., Bandara T.M.W.J. (2024) Effect of reduced graphene oxide doping on the thermoelectric properties of titanium dioxide: Seebeck coefficient analysis Proceedings of the International Conference on Applied and Pure Sciences – 2024.

Water Quality Research

1. Jayasinghe, Y.A., Peiris, P., Pradeep, R., Jayawickrama, S.M., Senevirathna, K., Piyarathne, N., Ariyasena, T.C., Jayawardena, N.U., **Jayasinghe, L., Weerasooriya, R.,** and Jayasinghe, R. (2024). Toxic Metal Analysis of Sri Lankan *Areca catechu* Varieties. *Proceedings of the Sri Lanka Dental Association's Annual Scientific Sessions 2024, Sri Lanka Dental Association*.

2. Ketharani, J., Samarajeewa, D.R., Rathnayake, R.M.L.D., Weragoda, S.K., Jinadasa, K.B.S.N., Mowjood, M.I.M., Anuradha, J.M.P.N., **Weerasooriya, R.,** and Schensul, S.L. (2024). Community Approach Towards Modern Water Treatment Technology; Study in Asamodhagamyaya. *The 15th International Conference on Sustainable Built Environment 2024, Kandy, Sri Lanka*.

3. Vijesundara, V.M.T.N., Makehelwala, M., **Jayarathna, L., Weerasooriya, R.,** and Bandara, W.M.A.T. (2024). Investigation of the presence of humic substances and their metal binding ability in water. *Proceedings of the Postgraduate Institute of Science Research Congress, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka*.

4. Chen, X., Liu, Y., Wu, Z.G., and **Weerasooriya, R.** (2024). Nanoelectrochemistry for detection of Chromium(vi) in aqueous environment. *9th International Symposium on Water Quality and Human Health: Challenges Ahead, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka*.

5. Gunathilaka, M.D.C.P., Sewwandi, B.V.N., Senarathne, S.M.L.M.B., Silva, M.H.W.G.D., and **Weerasooriya, R.** (2024). Membrane driven water desalination and removal of total dissolved solids from dry zone waters in Sri Lanka. *9th International Symposium on Water Quality and Human Health: Challenges Ahead, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka*.

6. Mudannayake, N., Gunawardana, E.G.W., and **Weerasooriya, R.** (2024). Time-based nitrate ion analysis in a stored drinking water sample. *Proceedings of the Postgraduate Institute of Science Research Congress, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka*.

7. Pathirana, P.K.K., Hemachandra, S.P., and **Weerasooriya, R.** (2024). Performance optimization of thin film nanocomposite membrane for water purification using a spin-assisted method. *9th International Symposium on Water Quality and Human Health: Challenges Ahead, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka*.

8. Silva, M.H.W.G.D., Gunathilaka, M.D.C.P., Senarathne, S.M.L.M.B., Wu, Z., Sewwandi, B.V.N., Chen, X., and **Weerasooriya, R.** (2024). Designing cloud-controlled laboratory-scale water desalination plant for rural community education and skills development. *9th International Symposium on Water Quality and Human Health: Challenges Ahead, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka*.

9. Bandara, P.M.C.J., Kumarasinghe, A.R., Sewwandi, B.V.N., Balasooriya, N.W.B., and **Weerasooriya, R.** (2024). X-ray photoelectron spectroscopic analysis of graphite oxide-coated sand for fluoride removal. *Proceeding of the 9th International Symposium on Water Quality and Human Health: Challenges Ahead, University of Peradeniya*.

10. Rodrigo, B.K.S.V., Hansani, S.H.U., Dharmapriya, P.L., and **Weerasooriya, R.** (2024). The geochemical origin of water salinity in the dry zone of Sri Lanka. *Proceeding of the 9th International Symposium on Water Quality and Human Health: Challenges Ahead, University of Peradeniya.*

11. Wijesiri, D.G.S.D., **Weerasooriya, R.,** and Gunawardana, W. (2024). Geochemical tracer to identify nitrate pollution in groundwater in the dry zone of Sri Lanka. *Proceeding of the 9th International Symposium on Water Quality and Human Health: Challenges Ahead, University of Peradeniya*.

12. Sewwandi, B.V.N., Kumarasinghe, A.R., and **Weerasooriya, R.** (2024). Experimental parameters on Superhydrophobic properties of carbon nanotubes for oil removal. *Proceeding of the 9th International Symposium on Water Quality and Human Health: Challenges Ahead, University of Peradeniya.*

13. Hansani, S.H.U., Mudannayake, N., Wijekoon, P., **Weerasooriya, R.,** and Chen. X. (2024). Hydrogeological assessment of groundwater in the metamorphic terrain of dry zone, Sri Lanka: integration of piper classification, multivariate analysis and geological mapping. *Proceeding of the 9th International Symposium on Water Quality and Human Health: Challenges Ahead, University of Peradeniya.*

14. Hemachandra, S.P., Senarathne, S.M.L.M.B., and **Weerasooriya, R.** (2024). A linear model approach to analyze radial acceleration effects of membrane thickness in spin coating. *Proceeding of the 9th International Symposium on Water Quality and Human Health: Challenges Ahead, University of Peradeniya*.

15. Wu, Z., Hemachandra, S.P., Chen, X., and **Weerasooriya, R.** (2024). Microchip assisted microfluid method for in situ total Nitrogen detection in water. *Proceeding of the 9th International Symposium on Water Quality and Human Health: Challenges Ahead, University of Peradeniya*.

Material Development and Pollutant Remediation

1. Vijesundara, V.M.T.N., Makehelwala, M., **Jayarathna, L., Weerasooriya, R.,** and Bandara, W.M.A.T. (2024). Investigation of the presence of humic substances and their metal binding ability in water. *Proceedings of the Postgraduate Institute of Science Research Congress, Postgraduate Institute of Science (PGIS), University of Peradeniya, Sri Lanka*.

2. **Jayarathna, L.,** Bandara, W.M.A.T., and Mannapperuma, M.M.A.K. (2024). Synthesis and structure elucidation of boron-incorporated ZSM-5 zeolites using TEABr as a structure-directing agent. *Young Scientists' Conference on Multidisciplinary Research-2024, National Institute of Fundamental Studies, Kandy*.

3. Welagedara, W.K.H., Gunathilaka, H.M.S.A.T., **Jayarathna, L.,** and **Magana-Arachchi, D.N.** (2024). In Situ Investigation of Microplastic-Associated Bacterial Communities in Surface

Water of Kandy Lake, Sri Lanka: Abundance, Composition, And Bacterial Diversity. *Postgraduate Institute of Science Research Congress, University of Peradeniya*.

4. Hasara, A.M., Gunasekara, I.A.A., Wijesekara, H., **Jayarathna, L.,** and Samarakoon, S.P.A.U.K. (2024). Fluoride removal from drinking water using gamma iron oxide-coated metakaolin. *8th International Research Conference of Uva Wellassa University, IRCUWU2024*.

CONFERENCE PROCEEDINGS

Microbial Biotechnology Research Programme

1. Kavinda, J.M.L., Balasooriya, B.L.W.K., **Premarathna, M.,** and **Seneviratne, G.** (2024). Perchlorate Reducing Microorganisms Isolated from Soils in Ussangoda Area in Sri Lanka: Candidates for Bioremediation on Mars. *22nd Agricultural Research Symposium (2024), Wayamba University of Sri Lanka*, (p.366-370): Wayamba University of Sri Lanka.

2. Amarasinghe, A.G.V.U, **Premarathna, M.,** Balasooriya, B.L.W.K., and **Seneviratne, G.** (2024). Optimizing Grain Yield by Enhancing Paddy Soil and Root Mycorrhizal Associations under Modern Bio-Organo Mineral Fertilizer. *22nd Agricultural Research Symposium, Wayamba University of Sri Lanka*, (p.181-185): Wayamba University of Sri Lanka.

3. Gunathunga, Y.G.S.S, **Premarathna, M.,** Balasooriya, B.L.W.K., and **Seneviratne, G.** (2024). Effect of Biofilm Exudates on Quality and Trichoderma Infestation of Oyster Mushroom (*Pleurotus ostreatus*) Cultivated using Different Substrates. *22nd Agricultural Research Symposium, Wayamba University of Sri Lanka*, (p.231-235): Wayamba University of Sri Lanka.

4. Senevirathne, R.A.G.H.L, **Premarathna, M.,** Balasooriya, B.L.W.K., and **Seneviratne, G.** (2024). Impact of Endophytic and Soil Microbes on Rice Grain Yield under Modern Bio-organo Mineral Fertilizer. *22nd Agricultural Research Symposium, Wayamba University of Sri Lanka*, (p.321-325): Wayamba University of Sri Lanka.

Water Quality Research Programme

1. Gunawardana, E.G.W., Bandarawaththa, B.G.D.S., Sato,Y., Toma, C., Gamage, C., Makehelwala, M., Weragoda, S.K., and **Weerasooriya, R.** (2024). Bacterial Diversity in Water Distributed under Intermittent Water Supply. *13 th Annual Conference and Scientific Sessions SSM 2024*, (p.1-2), Jaffna: Sri Lankan Society for Microbiology.

2. **Weerasooriya, R.** (2024). Community Drinking Water Supply Challenges in Sri Lanka. *Forum of Cooperation on OBOR Environment*, (p.110045), Beijing: OBOR, PR China.

BOOKS & BOOK CHAPTERS

1. Bihud, N.U.R.V., Samarakoon, K., **Jayasinghe, L**., and Ismail, N.H. (2024). Medicinal *Goniothalamus* Species. Traditional Medicines in Drug Discovery and Development (p. 119). Newcastle upon Tyne, UK, Cambridge Scholars Publishing.

2. Wickramasinghe, M., Rathnayaka, I, Hiththatiyage, R., Dias, C., Rambodagedara, S., Jayawardana, B.C., and **Liyanage, R**. (2024). Antioxidant activity of postbiotics. Postbiotics (p. 469-489). United States of America, Elsevier Inc.

3. Hiththatiyage, R., Wickramasinghe, M., Rathnayaka, I, Dias, C., Rambodagedara, S., Jayawardana, B.C., and **Liyanage, R**. (2024). Biodegradation of mycotoxins using postbiotics. Postbiotics (p. 681-701). United States of America, Elsevier Inc.

GRANTS

Grants - *New*

1. **Piyasena, N.P.** (PI) Ranatunga, M.A.B. (CI- Tea Research Institute of Sri Lanka), Napagoda, M.T. (CI- Faculty of Medicine, University of Ruhuna), Udari Egodage (CI- Faculty of Medicine, University of Ruhuna) received a Research Grant from Sri Lanka Council for the Agricultural Research Policy (CARP) on 2024-08-14 for Effect of the consumption of Sri Lankan black tea and value-added Sri Lankan black tea formulations on blood lipids: A randomized controlled trial. (Grant Value - 3,000,000 LKR)

Grants - *Ongoing*

1. **Dissanayake, M.A.K.L.** (Co-grantee) received a Research Grant from Ministry of Science, Technology and Research on 2017-01-01 for R&D towards manufacturing thin film solar cells at three universities (University of Peradeniya, University of Jaffna, University of Kelaniya) and NIFS. (Grant Value - 24,000,000 LKR)

2. **Dissanayake, M.A.K.L.** received a three-year Research Grant from Swedish Research Council, Sweden on 2022-01-01 for the project of novel nano-structures for performance enhancement of low-cost solar cells. (Grant Value - 4,500,000 LKR)

3. Perera, D. (PI- Rajarata University of Sri Lanka), and **Jayasinghe, L.,** (CI) received a Research Grant from The Asian Development Bank on 2022-04-01 for Saline farming: innovative agriculture to re-energize the economy and restore the ecosystem. (Grant Value - 2,512,250 LKR)

4. **Adikaram, N.K.B.,** (PI) **Jayasinghe, L., (CI)** and Yakandawala, D. (CI) received a Research Grant from National research council on 2021-06-01 for A study of postharvest disorders, pitting in guava, mango & papaya & husk scalding, pulp spot, chilling injury & vascular browning in avocado & their management. (Grant Value - 4,983,600 LKR)

5. **Magana-Arachchi, D.N. (PI), Vithanage, M. (CI),** and Wickramasinghe, C. (CI) received a Research Grant from The Bjornson and Prodan Foundation on 2018-01-01 for Balloon flights over central Sri Lanka to detect possible ingress of cometary microorganisms and particulate matter with object of testing Hoyle-Wickramasinghe theory of cometary panspermia. (Grant Value - 1,957,956 LKR)

6. **Vithanage, M., Magana-Arachchi, D.N.,** Wanigatunge, R., and Rajapaksha, A.U. received a Research Grant from National Science Foundation on 2019-04-26 for Enrichment mechanisms of CKDu-risk factors in groundwaters, their uptake pathways and potential remedies. (Grant Value - 19,209,155 LKR)

7. **Magana-Arachchi, D.N.,** and Medegedara, D. received a Research Grant from National Research Council of Sri Lanka on 2022-11-22 for Transcriptome analysis of mycobacteria in serum exosomes of latent tuberculosis patients for candidate biomarker identification. (Grant Value - 1,500,000 LKR)

8. Witharana, S., (PI) and **Wijayasinghe, H.W.M.A.C.** (CI) received a Research Grant from SRC on 2021-07-14 for Development of a commercial type Lithium-ion battery using Sri Lankan graphite. (Grant Value - 5,000,000 LKR)

9. **Wijayasinghe, H.W.M.A.C.,** and NIFS received a Research Grant from Mega grant from General Treasury of Sri Lanka on 2018-01-01 for Development of Sri Lankan graphite for rechargeable batteries. (Grant Value - 49,800,000 LKR)

RESEARCH COLLABORATIONS

Prof. M.A.K.L. Dissanayake

1. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with The Open University of Sri Lanka from 2019-09-01 to 2024-01-01.
   Summary: Engineering nano-materials for photovoltaic and environmental remedial applications under OUSL-AHEAD grant.
   Collaborators: ***Prof. G.K.R. Senadeera,*** *Prof. V.P.S. Perera, Prof. J.C.N. Rajendra, Dr. N. Karthikeyan, Dr. L.A. Wijenayaka, and* ***Prof. M.A.K.L. Dissanayake****.*

2. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Department of Physics, University of Jaffna, Sri Lanka from 2018-01-01 to 2024-01-01.
   Summary: Dye sensitized solar cells and gel polymer electrolytes for rechargeable batteries.
   Collaborators: Prof. K. Vignarooban, and ***Prof. M.A.K.L. Dissanayake****.*

3. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with South Eastern University of Sri Lanka from 2020-01-01 to 2024-01-01.
   Summary: Dye sensitized solar cells, quantum dots- sensitized and plasmonic solar cells and IR detector.
   Collaborators: Dr. T. Jaseetharan, and ***Prof. M.A.K.L. Dissanayake****.*

4. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Chalmers University (Sweden) from 2019-01-01 to 2024-01-01.
   Summary: Collaborative research on Dye sensitized solar cells and Quantam dot sensitized solar cells.
   Colloborators: Prof. B.E. Mellander, and ***Prof. M.A.K.L. Dissanayake****.*

5. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Sabaragamuwa University of Sri Lanka from 2018-01-01 to 2024-01-01.
   Summary: Applications of TiO2.
   Collaborators: Dr. H.N.M. Sarangika, and ***Prof. M.A.K.L. Dissanayake****.*

6. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Department of Physics, University of Peradeniya from 2017-01-01 to 2024-01-01.
   Summary: Dye sensitized solar cells and polymer electrolytes.
   Collaborators: Dr. B. Dassanayake, and ***Prof. M.A.K.L. Dissanayake****.*

7. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Department of Physics, University of Peradeniya from 2018-01-01 to 2024-01-01.
   Summary: Dye sensitized solar cells.
   Collaborators: Prof. T.M.W.J. Bandara, and ***Prof. M.A.K.L. Dissanayake****.*

8. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with University of Peradeniya, University of Kelaniya, University of Jaffna and University of Ruhuna from 2017-01-01 to 2024-01-01.
   Summary: Collaborative national “EduTraining” project towards R&D and training of personnel competent in thin film solar cell prototype manufacturing maintaining. NIFS is the principal coordinator. Work was started in 2017 and continuing.
   Collaborators: ***Prof. M.A.K.L. Dissanayake****.*

9. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Faculty of Science, University of Brunei Darussalam, Brunei from 2023-01-01 to 2024-01-01.
   Summary: Dye/quantum dot sensitized solar cells with novel counter electrodes.
   Collaborators: Prof. P. Ekanayake, ***Prof. G.K.R. Senadeera,*** *and* ***Prof. M.A.K.L. Dissanayake****.*

10. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Queensland University of Technology (Australia) from 2018-07-01 to 2024-01-01.
    Summary: Use of non-thermal atmospheric pressure plasma surface treatment for the application of dye sensitized solar cells.
    Collaborators: Dr. A.M.J.S. Weerasinghe, and **Prof. M.A.K.L. Dissanayake**.

11. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Faculty of Applied Sciences, Rajarata University of Sri Lanka from 2024-06-13 to 2025-01-01.
    Summary: Development of biopolymer-based Electrolytes for Eco-Friendly Energy Storage Applications.
    Collaborators: **Dr. J.M.K.W. Kumari,** and Dr. C.A. Thotawatthage.

12. Condensed Matter Physics and Solid-State Chemistry research programme of NIFS collaborates with Australian National University (Australia) from 2024-08-01 to 2027-08-01.
    Summary: Use of non-thermal atmospheric pressure plasma surface treatment for the application of solar cells and supercapacitors.
    Collaborators: **Dr. J.M.K.W. Kumari,** and Dr. A.M.J.S. Weerasinghe.

Prof. W.P.J. Dittus

1. Primate Biology research programme of NIFS collaborates with Indian Institute of Science, National Institute of Fundamental Studies (Sri Lanka) from 2018-10-03 to 2024-06-30. Summary: The phylogenetics of hybrids between the Sri Lankan primate species of langur *(Semnopithecus priam and S. vetulus).* Naturally occurring hybrids are of interest because of their role in the diversification of animals and the evolution of new species, the setting of limits to genetic compatibility between species, and in the extinction of species. *Collaborators:* ***Prof. W.P.J. Dittus,*** *Prof. P. Karanth, and Prof.* ***S. P. Benjamin****.*

Dr. I.P.L. Jayarathna

1. Material Development and Pollutant Remediation research programme of NIFS collaborates with Sabaragamuwa University from 2022-01-01 to 2027-01-01.
   Summary: Water quality development.
   Collaborators: **Dr. L. Jayarathna,** and Dr. H. Wijesekara.

2. Material Development and Pollutant Remediation research programme of NIFS collaborates with University of Peradeniya from 2018-01-01 to 2028-01-02.
   Summary: New material development and applications.
   Collaborators: **Dr. L. Jayarathna,** and Dr. W.A. Bandara.

3. Material Development and Pollutant Remediation research programme of NIFS collaborates with University of Colombo from 2022-07-01 to 2027-07-01.
   Summary: Removal of phosphate using iron oxide-coated super sand.
   Collaborators: **Dr. L. Jayarathna,** and Dr. S.M. Young.

4. Material Development and Pollutant Remediation research programme of NIFS collaborates with University of Peradeniya from 2021-01-03 to 2027-01-03.
   Summary: Heavy metals and some selected elemental spotlights in milking cows reared in high CKDu Prevalence areas in Sri Lanka.
   Collaborators: **Dr. L. Jayarathna,** Dr. G.D.R.K. Perera, and Dr. Ms. H.M.S. Wasana.

5. Material Development and Pollutant Remediation research programme of NIFS collaborates with The China-Sri Lanka Joint Research and Demonstration Center for Water Technology, University of Peradeniya from 2022-01-01 to 2027-01-01.
   Summary: Water quality development.
   Collaborators: Dr. S. Weragoda, Dr. Madubashini Mahakehelwala, and **Dr. L. Jayarathna**.

6. Material Development and Pollutant Remediation research programme of NIFS collaborates with University of Peradeniya from 2024-01-01 to 2025-01-01.
   Summary: User friendly in-field toolkit for detecting adulterants in rice polish used for animal feed formulation.
   Collaborators: **Dr. L. Jayarathna,** and Dr. W.N.U. Perera.

Prof. U.L.B. Jayasinghe

1. Natural Products research programme of NIFS collaborates with Faculty of Dental Sciences, University of Peradeniya from 2021-01-06 to 2025-01-06.
   Summary: Extraction and identification of bioactive secondary metabolites from plants.
   *Collaborators: **Prof. U.L.B. Jayasinghe,** and Prof. R. Jayasinghe.*

2. Natural Products research programme of NIFS collaborates with University of Peradeniya, Faculty of Medicine from 2012-01-01 to 2024-01-01.
   Summary: Study of plant metabolites.
   *Collaborators: Dr. Irushika Fernando, and **Prof. U.L.B. Jayasinghe.***

3. Natural Products research programme of NIFS collaborates with University of Ruhuna, Faculty of Medicine from 2012-01-01 to 2024-01-01.
   Summary: Study of plant metabolites.
   *Collaborators: Dr. M.T. Napagoda, and **Prof. U.L.B. Jayasinghe.***

4. Natural Products research programme of NIFS collaborates with University of Peradeniya, Faculty of Allied Health Science from 2015-01-01 to 2024-01-01.
   Summary: Study of plant and fungal metabolites.
   *Collaborators: Dr. N.R. Amarasinghe, and **Prof. U.L.B. Jayasinghe.***

5. Natural Products research programme of NIFS collaborates with Faculty of Medicine, University of Ruhuna from 2024-08-14 to 2027-08-13.
   Summary: The proposed study would provide scientific evidence to rationalize the hypolipidemic and cardio-protective effects of Sri Lankan black tea and its value-added products. These data can be used as an effective marketing tool to promote Ceylon Tea in the global market. The regular consumption of these products could improve the quality of life of the people while the cultivation of medicinal herbs used in the formulation of value-added products could generate additional income to the stakeholders.
   Collaborators: Prof. M.T. Napagoda. Dr. U.K. Egodage, and **Dr. N. Piyasena**.

6. Natural Products research programme of NIFS collaborates with Tea Research Institute of Sri Lanka from 2024-08-14 to 2027-08-13.
   Summary: The proposed study would provide scientific evidence to rationalize the

hypolipidemic and cardio-protective effects of Sri Lankan black tea and its value-added products. These data can be used as an effective marketing tool to promote Ceylon Tea in the global market. The regular consumption of these products could improve the quality of life of the people while the cultivation of medicinal herbs used in the formulation of value-added products could generate additional income to the stakeholders.
Collaborators: Dr. M.A.B. Ranatunga, and **Dr. N. Piyasena**.

Prof. G.R.A. Kumara

1. Material Processing and Device Fabrication research programme of NIFS collaborates with Research Center for Advanced Science and Technology (RCAST) from 2018-01-01 to 2028-12-31.
   Summary: Development of Supercapacitors.
   Collaborators: Prof. S. Uchida, and **Prof. G.R.A. Kumara**.

2. Material Processing and Device Fabrication research programme of NIFS collaborates with Department of Physics, University of West Georgia, United States from 2022-01-01 to 2026-01-31.
   Summary: Development of perovskite solar cells.
   Collaborators: Prof. L. Ajith De Silva, and **Prof. G.R.A. Kumara**.

3. Material Processing and Device Fabrication research programme of NIFS collaborates with Department of Physics, Georgia State University, United States. from 2022-01-01 to 2026-12-31.
   Summary: Development of perovskite solar cells.
   Collaborators: Prof. A.G. Unil Perera, and **Prof. G.R.A. Kumara**.

4. Material Processing and Device Fabrication research programme of NIFS collaborates with Department of Chemistry, University of Peradeniya. from 2022-01-01 to 2026-01-30.
   Summary: Development of supercapacitors and dye-sensitized solar cells.
   Collaborators: Prof. R.M.G. Rajapakse, and **Prof. G.R.A. Kumara**.

5. Material Processing and Device Fabrication research programme of NIFS collaborates with Department of Physics, University of Jaffna from 2022-01-01 to 2026-01-30.
   Summary: Development of perovskite and dye-sensitized solar cells.
   Collaborators: Prof. P. Ravirajan, and **Prof. G.R.A. Kumara**.

6. Material Processing and Device Fabrication research programme of NIFS collaborates with Department of Physics, University of Peradeniya. from 2021-08-16 to 2026-12-30.
   Summary: Development of supercapacitors and dye-sensitized solar cells.
   Collaborators: Prof. T.M.W.J. Bandara, and **Prof. G.R.A. Kumara**.

7. Material Processing and Device Fabrication research programme of NIFS collaborates with Toyota Technological Institute, Japan from 2023-08-01 to 2026-01-30.
   Summary: Anode materials for lithium-ion batteries using carbon materials.
   Collaborators: Prof. M. Yoshimura, and **Prof. G.R.A. Kumara**.

8. Material Processing and Device Fabrication research programme of NIFS collaborates with Western Norway University of Applied Sciences from 2022-01-02 to 2026-01-01.
   Summary: Development of perovskite and dye-sensitized solar cells, development of supercapacitors.
   Collaborators: Prof. D. Velauthapillai, and **Prof. G.R.A. Kumara**.

Prof. R. Liyanage

1. Nutritional Biochemistry research programme of NIFS collaborates with Horticultural Crops Research and Development Institute (HORDI) from 2022-02-12 to 2024-02-15.
   Summary: There are a number of underutilized yams in Sri Lanka with the potential of contributing to improving food security in Sri Lanka. This study investigates the nutritional and functional properties of some selected yams with the aim of promoting their consumption among people to improve their nutritional status.
   Collaborators: Mrs.Theja Nanayakkara, ***Prof. R. Liyanage.***

2. Nutritional Biochemistry research programme of NIFS collaborates with University of Sri Jayawardhanapura from 2022-01-12 to 2024-03-31.
   Summary: Dietary carbohydrates play a significant role in developing type 2 diabetes and its associated health complications. Systematic reviews and meta-analysis revealed that the type of carbohydrate, their quality, and their composition critically influenced health. This research is designed to compare the physicochemical and functional properties of commonly available dietary carbohydrate sources in Sri Lanka.
   Collaborators: Dr. Chatuni Jayathilake, and ***Prof. R. Liyanage.***

Prof. D.N. Magana-Arachchi

1. Molecular Microbiology and Human Diseases research programme of NIFS collaborates with Molecular Biology/ Biochemistry Department, National University of Medical Sciences, Rawalpindi, Pakistan from 2018-04-20 to 2024-12-31.
   Summary: The study focuses on drug resistant tuberculosis (MDR-TB), the condition at which the TB bacterium becomes resistant to two most powerful first line drugs: rifampin and isoniazid. Herein, we would determine the prevalence of MDR-TB in the country, detect the mutations responsible for resistance development and study the differential patterns of host immune responses.
   Collaborators: Prof. S. Younis, and ***Prof. D.N. Magana-Arachchi.***

2. Molecular Microbiology and Human Diseases research programme of NIFS collaborates with respiratory disease treatment unit, Teaching hospital, Kandy from 2018-04-20 to 2031-12-31.
   Summary: Information generated on local tuberculosis epidemiology, drug resistance patterns and differential host immune responses, would help in establishing better procedures in controlling drug resistant tuberculosis, improve patient status and reduce the overall health care cost spent on tuberculosis in Sri Lanka.
   Collaborators: Dr. R.M.D. Madegedara, and ***Prof. D.N. Magana-Arachchi****.*

Prof. J.M.N. Marikkar

1. Food Chemistry research programme of NIFS collaborates with University Putra Malaysia from 2023-07-01 to 2026-12-31.
   Summary: Fats and oils have been perceived for a long time as essential nutrients of human diet as well as concentrated sources of energy. They act as carriers of fat-soluble vitamins in the human diet. Besides these, they also play an important role in the transport of substances that determine the growth and development of body muscles as well as the brain. Sri Lanka as a tropical country with a rich biodiversity has got several underutilized oils and fat resources. They are found in edible plants, fruits, seeds and marine animals. Some of them are underutilized due to lack of research on their commercial exploitation. Through systematic studies, these oil resources can be converted into novel food products or ingredients. The novel lipid products can not only be used to address the food and nutritional needs of the society but

also can serve as functional foods to mitigate the risk of chronic diseases. In this project, we aim to establish the nutritional profiles of various edible seeds, fruits, and marine animals.
Collaborators: Prof. O.M. Lai, and ***Prof. J.M.N. Marikkar.***

Prof. R.R. Ratnayake

1. Microbiology and Soil Ecosystems research programme of NIFS collaborates with CSIRO, Agriculture and Food, Canberra, Australia from 2017-12-18 to 2025-05-08.
   Summary: Regarding the expertise in agricultural modelling.
   Collaborators: Dr. S. B. Karanaratne, and ***Prof. R.R. Ratnayake.***

2. Microbiology and Soil Ecosystems research programme of NIFS collaborates with School of Environment Sciences, University of Guelph, Canada. from 2016-11-15 to 2024-11-15.
   Summary: Regarding the expertise in GIS based mapping.
   Collaborators: Dr. A. Biswas, and ***Prof. R.R. Ratnayake.***

Prof. N.D. Subasinghe

1. Earth Resources and Renewable Energy research programme of NIFS collaborates with Rajarata University, Mihintale from 2022-01-01 to 2025-01-01.
   Summary: Here we conduct analysis on archeological samples from Yan Oya anicut, Sri Lanka.
   Collaborators: Prof C.R. Withanachchi, and **Prof. N.D. Subasinghe**.

2. Earth Resources and Renewable Energy research programme of NIFS collaborates with National Ocean Affairs Committee, Ministry of Foreign Relations, Sri Lanka from 2016-01-01 to 2025-12-12.
   Summary: Conduct geothermal explorations applying geological, geophysical and geochemical techniques in the geothermal areas of Sri Lanka.
   Collaborators: Ms. S.A. Samaranayake, and **Prof. N.D. Subasinghe**.

3. Earth Resources and Renewable Energy research programme of NIFS collaborates with Geological Survey and Mines Bureau, Sri Lanka from 2016-02-01 to 2025-12-01.
   Summary: Conducting geophysical surveys on geothermal arears in Sri Lanka.
   Collaborators: Mr. Nalin de Silva., and **Prof. N.D. Subasinghe**.

4. Earth Resources and Renewable Energy research programme of NIFS collaborates with Rajarata University, Mihintale from 2016-01-01 to 2025-12-01.
   Summary: Conduct geothermal explorations applying geological, geophysical and geochemical techniques in the geothermal areas of Sri Lanka.
   Collaborators: Dr. U. Dahanayake, Dr. H.O. Wijewardane, and **Prof. N.D. Subasinghe**.

5. Earth Resources and Renewable Energy research programme of NIFS collaborates with Dept. of Geology, University of Peradeniya from 2016-01-01 to 2025-01-01.
   Summary: Conduct research on petrology and mineralogy of Sri Lankan rocks.
   Collaborators: **Prof. N.D. Subasinghe**.

6. Earth Resources and Renewable Energy research programme of NIFS collaborates with Dept. of Physics, University of Peradeniya from 2018-02-01 to 2025-12-01.
   Summary: Here we conduct research on Time-dependent finite-difference model for transient and steady-state analysis of thermoelectric bulk materials.
   Collaborators: Dr. B.M.K. Pemasiri., and **Prof. N.D. Subasinghe**.

7. Earth Resources and Renewable Energy research programme of NIFS collaborates with Dept. of Physics, University of Peradeniya from 2019-01-01 to 2025-02-01.
   Summary: Here we conduct thermoelectric researches by applying various techniques with different materials.
   Collaborators: Dr. L.K. Narangammana., and **Prof. N.D. Subasinghe**.

8 Earth Resources and Renewable Energy research programme of NIFS collaborates with Dept. of Physics, University of Peradeniya from 2019-01-01 to 2024-12-01.
   Summary: Here we conduct thermoelectric researches by applying various techniques with different materials.
   Collaborators: Prof. T.M.W.J. Bandara, and **Prof. N.D. Subasinghe**.

9. Earth Resources and Renewable Energy research programme of NIFS collaborates with Department of Geology, University of Peradeniya from 2016-01-01 to 2025-12-01.
   Summary: Here we are carrying out various petrological and structural geological studies with the participation of undergraduate and postgraduate students.
   Collaborators: S.P.K. Malaviarachchi, and **Prof. N.D. Subasinghe**.

Prof. D.S.A. Wijesundara

1. Plant Taxonomy and Conservation research programme of NIFS collaborates with National Herbarium Royal Botanic Gardens, Peradeniya from 2016-03-01 to 2026-12-31.
   Summary: With the national Herbarium many taxonomic studies and conservation documentation activities including the preparation of national red List are conducted.
   *Collaborators: Dr. Subhani Ranasinghe, and **Prof. D.S.A. Wijesundara**.*

2. Plant Taxonomy and Conservation research programme of NIFS collaborates with Qujing Normal University, Qujing, Yunnan, P.R. China from 2019-08-01 to 2026-12-31.
   Summary: With this collaboration several studies on fungi are conducted. One graduate student is working on fungi in Eucalyptus plantations in Sri Lanka. Studies are also planned on establishing a National mycological repository.
   *Collaborators: Prof. Nalin Wijayawardena, and **Prof. D.S.A. Wijesundara**.*

3. Plant Taxonomy and Conservation research programme of NIFS collaborates with Agricultural Biotechnology Centre University of Peradeniya from 2018-08-01 to 2025-12-31.
   Summary: Several research activities are conducted through this collaboration. Main projects include research on Sri Lankan Cinnamon and taxonomic studies of genus Strobilanthes (nelu).
   *Collaborators: Prof. Pradeepa Bandaranayake, and **Prof. D.S.A. Wijesundara**.*

4. Plant Taxonomy and Conservation research programme of NIFS collaborates with Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka, Belihuloya, from 2021-06-01 to 2024-12-31.
   Summary: Underutilized fruit ma dan (Syzygium cuminii) Sri Lanka is studied jointly.
   *Collaborators: Prof. Kapila Dissanayake, and **Prof. D.S.A. Wijesundara**.*

5. Plant Taxonomy and Conservation research programme of NIFS collaborates with Natural History Museum United Kingdom from 2017-05-01 to 2026-12-31.
   Summary: Taxonomy of Sri Lankan lichens is studied with the collaboration of the natural history museum, UK. There is a graduate student jointly supervised.
   *Collaborators: Dr. Gothamie Weerakon, and **Prof. D.S.A. Wijesundara**.*

6. Plant Taxonomy and Conservation research programme of NIFS collaborates with Department of Crop Science, Faculty of Agriculture, University of Peradeniya from 2017-07-01 to 2025-12-31.

Summary: Taxonomic studies of Pteridophytes (ferns) of Sri Lanka is the major research activity in this collaboration.
Collaborators: Dr. R. H. G. Ranil, and ***Prof. D.S.A. Wijesundara****.*

7. Plant Taxonomy and Conservation research programme of NIFS collaborates with Department of Chemistry, University of Peradeniya from 2016-03-01 to 2025-12-31.
Summary: The main research activities of this collaboration are phytochemical studies of higher plants and lichens.
Collaborators: Prof. V. Karunarathne, and ***Prof. D.S.A. Wijesundara****.*

Dr. H.W.M.A.C. Wijayasinghe

1. Nanotechnology and Advanced Materials research programme of NIFS collaborates with Department of Mechanical Engineering, University of Moratuwa from 2021-07-01 to 2024-06-30.
Summary: Development of a commercial type lithium-ion battery using Sri Lankan graphite.
Collaborators: ***Dr. H.W.M.A.C. Wijayasinghe,*** *Dr. S. Vitharana, Dr. L. Subasinghe, and Dr. T.H.N.G. Amaraweera.*

Prof. R. Weerasooriya

1. Water Quality Research Program of NIFS collaborates with Wuhan New fibre Optics Electron Co., Ltd, PR China from 2018-01-01 to 2024-01-01.
Summary: interfacing water treatment plants.
Collaborators: ***Prof. R. Weerasooriya*** *and Interface industry group.*

2. Water Quality Research Program of NIFS collaborates with University of Peradeniya from 2010-01-01 to 2024-01-01.
Summary: Vibration spectroscopy of surfaces.
Collaborators: ***Prof. R. Weerasooriya*** *and Dr. Atula Bandara*.

3. Water Quality Research Program of NIFS collaborates with National Water Supply Drainage Board, Kandy from 2017-01-01 to 2024-01-01.
Summary: Membrane use for water desalination. China Sir Lanka collaboration.
Collaborators: ***Prof. R. Weerasooriya*** *and Dr. S. K. Weragoda.*

4. Water Quality Research Program of NIFS collaborates with Chinese Academy of Sciences China from 2017-01-01 to 2024-10-01.
Summary: Membrane development for drinking water desalination.
Collaborators: ***Prof. R. Weerasooriya*** *and Prof. Y. Wei.*

5. Water Quality Research Program of NIFS collaborates with University of Peradeniya from 2018-01-01 to 2023-01-01.
Summary: Groundwater flow modeling.
Collaborators: ***Prof. R. Weerasooriya*** *and Prof. P. Wijekone.*

6. Water Quality Research Programme research programme of NIFS collaborates with South Africa from 2024-05-09 to 2034-05-09.
Summary: South Africa and Sri Lanka on Science and Technology.
Collaborators: **Prof. R. Weerasooriya,** and G.S. Kannangara

RESEARCH SUPERVISION

Ph.D. Completed

1. Ph.D. degree was awarded to Ms. S. Saseevan in year 2024 by the University of Peradeniya for the thesis titled "Identification of urinary biomarkers and comparison of urine microbiome in diabetic and hypertensive chronic kidney disease patients with healthy controls". The research was supervised by **Prof. D.N. Magana-Arachchi,** Prof. S. Rajapakse, and Dr. W.A.A.G.N. Nishanthi.

2. Ph.D. degree was awarded to Ms. A.G.A.W. Alakolanga in year 2024 by the Jacobs University, Bremen, Germany for the thesis titled "LC-MS Based Profiling of Peptides and Proteins of Common Legumes in Sri Lanka and Evaluation of their Bioactive Potential". The research was supervised by **Prof. L. Jayasinghe,** and Prof. N. Kuhnert since 2020-10-01.

M.Phil Completed

1. M.Phil degree was awarded to Ms. K.D.P.U. Siriwardhane in year 2024 by University of Peradeniya for the thesis titled "Chemistry and Bioactivity of Secondary Metabolites Produced by Endophytic Fungi Isolated from *Cardiospermum halicacabum* and *Zingiber officinale* ". The research was supervised by **Prof. L. Jayasinghe,** and **Prof. N.K.B. Adikaram**.

2. M.Phil degree was awarded to Ms. S.W. Meepegamage in year 2024 by University of Peradeniya for the thesis titled "Effect of biofim biofertilizer on soil nutrients, microbes, endophytes and paddy yield". The research was supervised by **Prof. G. Seneviratne**.

3. M.Phil degree was awarded to Ms. J.C. Kalinga in year 2024 by University of Peradeniya for the thesis titled "Chemistry and Bioactivities of Microbial Metabolites Produced by Endophytic Fungi Isolated From *Acalypha indica* and *Curcuma Longa*". The research was supervised by **Prof. L. Jayasinghe,** and **Prof. N.K.B. Adikaram**.

4. M.Phil degree was awarded to Ms. R. Kulasingam in year 2024 by Postgraduate Institute of Agriculture for the thesis titled "Comparative studies of raw and processed underutilized minor millets in Sri Lanka and their suitability as wheat flour substitute". The research was supervised by **Prof. R. Liyanage,** and Prof.T Madujith.

5. M.Phil degree was awarded to Mr. A.D.T. Medagedara in year 2024 by University of Peradeniya for the thesis titled "Low cost and high Efficient Energy Storage and Conversion Devices using Activated Carbon". The research was supervised by **Prof. G.R.A. Kumara,** and Dr. T.M.W.J. Bandara

6. M.Phil degree was awarded to Ms. P. M. C. J. Bandara in year 2024 by University of Peradeniya for the thesis titled " Development of a new unit process using surface-enhanced sand composites for simultaneous removal of turbidity and fluoride in water". The research was supervised by **Prof. R. Weerasooriya,** Prof. A.R. Kumarasinghe, Prof. Xing Chen, and Prof. Balasooriya

7. M. Phil degree was awarded to Ms. C.B. Gunawardhana in the year 2024 by University of Peradeniya for the thesis titled "Chemistry and Bioactivity of Costus Speciosus and Associated Fungi: *Phoma Multirostrata* and *Guignardia Mangiferae*". The research was supervised by **Prof. U.L.B. Jayasinghe** and Prof. N.S. Kumar.

M.Sc. Completed

1. M.Sc. degree was awarded to Ms. S.M.D.C. Bandara in year 2024 by Postgraduate Institute of Agriculture, University of Peradeniya for the thesis titled "Total Lipid Content & Fatty Acid Composition of Three Morphologically-Distinct *Chlorella* spp. Isolated from Three Different Freshwater Bodies in Sri Lanka for Biodiesel Production". The research was supervised by **Prof. R.R. Ratnayake,** and Prof. D.M. De Costa.

2. M.Sc. degree was awarded to Ms. S.M.K.T. Samarakoon in year 2024 by University of Peradeniya for the thesis titled "Bioactivity of an endophytic fungus isolated from *Centella asiatica*". The research was supervised by **Prof. L. Jayasinghe,** and **Prof. N.K.B. Adikaram**.

3. M.Sc. degree was awarded to Ms. B.G.R.R. Bandara in year 2024 by Qilu University of Technology, China for the thesis titled "Investigation of Phytotoxic Potential of Extract from Leaf of *Zingiber Officinale* (Ginger)". The research was supervised by Prof. Tianduo Li and **Prof. L. Jayasinghe**.

4. M.Sc. degree was awarded to Ms.T.D.A.D.K. Kulathunge in year 2024 by Faculty of Graduate Studies, University of Kelaniya for the thesis titled "Prospecting bioassays and enzyme inhibitory activities of *Alysicarpus vaginalis*, *Biophytum reinwardtii*, *Mikania cordata* and *Plumeria obtusa*". The research was supervised by **Prof. J.M.N. Marikkar,** and **Prof. L. Jayasinghe**.

B.Sc. Completed

1. Ms. S. Ariyachandra graduated from Sabaragamuwa University of Sri Lanka in year 2024. The research project on "Cyanobacteria-based bioremediation of agro-industry wastewater and the potential of using wastewater as a growth medium for cyanobacteria mass culturing" was conducted at the NIFS under the supervision of **Prof. R.R. Ratnayake** from 2023-08-31 to 2024-01-05.

2. Ms. H. T. T. G. Dharmmasekara graduated from Sabaragamuwa University of Sri Lanka in year 2024. The research project on "Biofilm Formation and Mycorrhization with Biofilm Biofertilizer Application in Rice: Laboratory Simulation Study" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2023-05-01 to 2024-01-31.

3. Mr. M.H.M. Shamri graduated from Uva Wellassa University in year 2024. The research project on "Recycling Anode Material from Discarded Lithium-Ion Rechargeable Batteries" was conducted at the NIFS under the supervision of Mr. H.P.T.S. Hewathilake, Dr. T.H.N.G. Amaraweera, and **Dr. H.W.M.A.C. Wijayasinghe** from 2023-08-25 to 2023-10-30.

4. Ms. M.M.D. Sathsara graduated from Uva Wellassa University in year 2024. The research project on "Recycling Cathode Material from Discarded Lithium-Ion Rechargeable Batteries" was conducted at the NIFS under the supervision of Mr. H.P.T.S. Hewathilake, Dr. T.H.N.G. Amaraweera, and **Dr. H.W.M.A.C. Wijayasinghe** from 2023-08-25 to 2023-10-30.

5. Ms. H.W.M.M. Chandrasena graduated from Uva Wellassa University of Sri Lanka in year 2024. The research project on "Electrochemical Exfoliation of Vein Graphite" was conducted at the NIFS under the supervision of Mr. H.P.T.S. Hewathilake, Dr. T.H.N.G. Amaraweera, and **Dr. H.W.M.A.C. Wijayasinghe** from 2023-08-25 to 2023-10-30.

6. Mr. A.G.M.P. Rajapaksha graduated from Wayamba University of Sri Lanaka in year 2024. The research project on "Development of an Electro-Dialysis Reversal Electrode System Using Sri Lankan Vein Graphite" was conducted at the NIFS under the supervision of Dr. T.H.N.G. Amaraweera, and **Dr. H.W.M.A.C. Wijayasinghe** from 2023-10-30 to 2023-11-30.

7. Mr. M.M.A.K. Mannapperuma graduated from University of Peradeniya in year 2024. The research project on "Synthesis and structure elucidation of boro-alumino zeolite with different structure directing agents" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2024-01-12 to 2024-02-24.

8. Ms. M.S.S.P. Somarathna graduated from University of Peradeniya in year 2024. The research project on "*In vitro* bioaccessibility of polyphenols, carotenoids, flavonoids, trace elements, heavy metals and antioxidant activity in three edible sea weeds collected from coastal areas in Sri Lanka" was conducted at the NIFS under the supervision of Prof. B.C. Jayawardana, Dr. P. Weththasinghe, and **Prof. R. Liyanage** from 2023-12-18 to 2024-03-08.

9. Ms. T.M.D.H. Kumarasinghe graduated from University of Peradeniya in year 2024. The research project on "Antioxidant and antidiabetic potential of postbiotics from *Lactobacillus and Bifidobacterium isolated from swine cecal content*" was conducted at the NIFS under the supervision of Prof. B.C. Jayawardana, Dr. P. Weththasinghe, and **Prof. R. Liyanage** from 2023-12-18 to 2024-03-08.

10. Ms. H.W.S.S. Subhasinghe graduated from University of Peradeniya in year 2024. The research project on "Fatty acid profile and growth performance of black soldier fly larvae (*Hermetia illucens*) grown on pre-treated seaweeds (*kappaphycus alvarezii*)" was conducted at the NIFS under the supervision of Dr. P. Weththasinghe, Prof. B.C. Jayawardana, and **Prof. R. Liyanage** from 2023-12-26 to 2024-03-08.

11. Ms. D.S.S. De Silva graduated from University of Peradeniya in year 2024. The research project on "Impact of administrating polyphenol-rich sugarcane extract through drinking water on the egg quality of laying hens" was conducted at the NIFS under the supervision of **Prof. R. Liyanage** and Dr. N.D. Karunarathne from 2024-03-07 to 2024-06-10.

12. Ms. M.A.K.H. Mallawa Arachchi graduated from University of Peradeniya in year 2024. The research project on "Determination of Bioactivity Potential of Selected Medicinal Plants in Sri Lanka" was conducted at the NIFS under the supervision of **Prof. L. Jayasinghe,** and Prof. E. Mendis from 2023-09-01 to 2024-03-18.

13. Ms. W.A.S.H. Senevirathne graduated from Sabaragamuwa University of Sri Lanka in year 2024. The research project on "Comparison of nutritional and bioactive properties of four duckweed varieties" was conducted at the NIFS under the supervision of **Prof. R. Liyanage** from 2023-12-18 to 2024-03-29.

14. Ms. W.A.D.S. Wijesinghe graduated from Open University of Sri Lanka in year 2024. The research project on "Bioactivity of methanolic extracts of *Piper longum*" was conducted at the NIFS under the supervision of Rodrigo, S., and **Prof. L. Jayasinghe** from 2022-12-13 to 2024-04-04.

15. Ms. M.L.P. Upekshika graduated from University of Ruhuna in year 2024. The research project on "Improving the quality of Martian simulant soil (serpentine soil) for a better plant growth: a biofilm biofertilizer approach" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-03-15.

16. Mr. A.P. Naik graduated from PES University, Bangalore, India in year 2024. The research project on "Interactions of EPS biofilm biochemicals with soil enzymes" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-04-30.

17. Mr. J.A.S.D. Dayananda graduated from Wayamba University of Sri Lanka in year 2024. The research project on "Development of “Dam-Manel” (Nymphaea erangae) flower-based ice cream" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-03-01 to 2024-05-01.

18. Ms. H.M.C.K. Herath graduated from The Open University of Sri Lanka in year 2024. The research project on "Bioactivities of *Dillenia retusa* fruits" was conducted at the NIFS under the supervision of **Prof. L. Jayasinghe,** and Dr.S. Rodrigo from 2022-06-02 to 2024-01-05.

19. Mr. H.A.K.D. Premasiri graduated from University of Sri Jayewardenepura in year 2024. The research project on "Bioactivity studies and phytochemical screening of *Buchanania axillaris, Curcuma longs* and *Zingiber zerumbet* as potential sources for medicine and agriculture" was conducted at the NIFS under the supervision of **Prof. L. Jayasinghe** from 2023-10-23 to 2024-05-31.

20. Ms. R. Maheswaran graduated from University of Ruhuna in year 2024. The research project on "Assessing the soil carbon storage capacity of Chena cultivation systems associated with the Katupotha tank cascade system in the Dry zone of Sri Lanka" was conducted at the NIFS under the supervision of **Prof. R.R. Ratnayake** from 2023-11-28 to 2024-05-31.

21. Ms. K. Mahendraraj graduated from University of Ruhuna in year 2024. The research project on "Assessing the soil carbon storage capacity of forest systems: A case study associated with the Katupotha tank cascade system in the dry zone of Sri Lanka" was conducted at the NIFS under the supervision of **Prof. R.R**. **Ratnayake** from 2023-11-28 to 2024-05-31.

22. Ms. A. Zakey graduated from University of Ruhuna in year 2024. The research project on "Exploring cyanobacterial bioremediation strategies for chemical-free treatment of textile wastewater: A comprehensive investigation towards sustainable and eco-friendly solutions" was conducted at the NIFS under the supervision of **Prof. R.R. Ratnayake** from 2023-11-28 to 2024-05-31.

23. Mr. P. Sivarajah graduated from Lincoln University College, Malaysia in year 2024. The research project on "Antioxidant, toxicity, and enzyme-inhibitory potential of *Annona muricata, Persea americana* and *Phyllanthus acidus*" was conducted at the NIFS under the supervision of **Prof. L. Jayasinghe** from 2024-01-01 to 2024-05-31.

24. Mr. J.M.L. Kavinda graduated from Wayamba University of Sri Lanka in year 2024. The research project on "Perchlorate Reducing Microorganisms Isolated from Soils in Ussangoda Area in Sri Lanka: Candidates for Bioremediation on Mars" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-06-30.

25. Ms. H. Senevirathne graduated from Wayamba University of Sri Lanka in year 2024. The research project on "Impact of Endophytic and Soil Microbes on Rice Grain Yield under Modern Bio-organo Mineral Fertilizer" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-06-26.

26. Mr. S. Gunathunga graduated from Wayamba University of Sri Lanka in year 2024. The research project on "Effect of Biofilm Exudates on Quality and Trichoderma Infestation of

Oyster Mushroom (Pleurotus ostreatus) Cultivated using Different Substrates" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-06-26.

27. Ms. V. Amarasinghe graduated from Wayamba University of Sri Lanka in year 2024. The research project on "Optimizing Grain Yield by Enhancing Paddy Soil and Root Mycorrhizal Associations under Modern Bio-Organo Mineral Fertilizer" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-06-26.

28. Ms. E.M.U.D.M. Ekanayake graduated from Sabaragamuwa University of Sri Lanka in year 2024. The research project on "Nutritional Composition and Bioactivity Studies of Edible Banana (Musa sp.) Soft Stem" was conducted at the NIFS under the supervision of **Prof. J.M.N. Marikkar** from 2023-12-18 to 2024-03-10.

29. Ms. Y.M.U.G.Y.N.K. Wijethunge graduated from National Institute of Business Management in year 2024. The research project on "Evaluation of biological potentials of *Achyranthes aspera L., Santalum album L.* and *Withania somnifera L.*" was conducted at the NIFS under the supervision of **Prof. L. Jayasinghe** from 2024-04-01 to 2024-07-15.

30. Mr. D.G.C.S. Illangarathne graduated from Open University of Sri Lanka in year 2024. The research project on "Developments to improve quality of coconut testa oil: evaluation of multiple processing methods" was conducted at the NIFS under the supervision of **Prof. J.M.N. Marikkar** from 2023-06-06 to 2024-02-15.

31. Ms. R.G.C.L. Abeywardhana graduated from The Open University of Sri Lanka in year 2024. The research project on "Nature's hidden potentials: bioactivity assessments of *Commelina benghalensis, Erythrina variegata L.* and *Symplocos cochinchinensis.*" was conducted at the NIFS under the supervision of **Prof. L. Jayasinghe** from 2024-03-27 to 2024-07-31.

32. Ms. W.M.W.S.S. Gnanarathne graduated from Uva Wellassa University of Sri Lanka in year 2024. The research project on "Effect of biofilm biofertilizer application on endophytes and secondary metabolites production in tea plant" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-03-14 to 2024-08-20.

33. Ms. E. Aravindi graduated from University of Ruhuna in year 2024. The research project on "Evaluating the Interplay of Water Management on Rice Production with the Presence of Biofilm Biofertilizer" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-08-20.

34. Ms. C. Gunawardana graduated from University of Ruhuna in year 2024. The research project on "Optimizing Rice Grain Quality under Water-Limited Environments: Role of Biofilm Biofertilizer and Water use efficient cultivars" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-08-20.

35. Ms. T. Wijepala graduated from University of Ruhuna in year 2024. The research project on "Soil Microbial Biomass Carbon Variation in Different components of the Selected tanks associated with the Katupotha Tank Cascade system in the Dry Zone of Sri Lanka" was conducted at the NIFS under the supervision of **Prof. R.R. Ratnayake** from 2024-03-26 to 2024-08-30.

36. Ms. S.K. Ramodya graduated from University of Ruhuna in year 2024. The research project on "Cyanobacteria biodegradation of commercially available textile dyes" was conducted at the NIFS under the supervision of **Prof. R.R. Ratnayake** from 2024-03-26 to 2024-08-30.

37. Ms. D.M.K.S.K. Divisekara graduated from Horizon Campus, Malabe in year 2024. The research project on "Effect of Biofilm biofertilizer on paddy soil biofilm formation and mycorrhization- A Laboratory Simulation Study" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-01-01 to 2024-09-17.

38. Ms. K.G.S.N. Kumari graduated from Open University Sri Lanka in year 2024. The research project on "Comparison of creamed coconut testa and creamed coconut as a substitute for coconut milk in culinary uses" was conducted at the NIFS under the supervision of **Prof. J.M.N. Marikkar** from 2023-06-14 to 2024-02-15.

39. Ms. M.M.P.M. Marasinghe graduated from University of Peradeniya in year 2024. The research project on "Micro screw press extraction of Terminalia catappa L. fruits' seed kernel: analysis of oil and defatted residue" was conducted at the NIFS under the supervision of **Prof. J.M.N. Marikkar** from 2023-12-04 to 2024-07-05.

40. Ms. N.K. Jinasena graduated from Sabaragamuwa University of Sri Lanka in year 2024. The research project on " Efficiency of duckweed in phytoremediation of dairy farm effluent and contaminants of kandy lake, sri lanka" was conducted at the NIFS under the supervision of **Prof. D.S.A. Wijesundara** from 2023-08-30 to 2024-10-02.

41. Mr. S. Vivekraj graduated from University of Jaffna in year 2024. The research project on "Grain quality of paddy cultivated under modern bio-organo-mineral fertilizer" was conducted at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-04-01 to 2024-10-02.

42. Mr. H.L.R.D. Silva graduated from Uwa Welassa University in year 2024. The research project on "Development of Sweetened Tea Blend Using Stevia Leaf" was conducted at the NIFS under the supervision of **Prof. J.M.N. Marikkar** from 2024-03-18 to 2024-07-18.

43. Ms. R. Raman graduated from University of Jaffna in year 2024. The research project on "Nostoc cultivated in dairy effluent as a nutrient source for hydroponics lettuce" was conducted at the NIFS under the supervision of **Prof. R.R. Ratnayake** from 2024-01-04 to 2024-10-15.

44. Ms. M. Mansoor graduated from Ocean University of Sri Lanka in year 2024. The research project on "Bioremediation of synthetic textile dyes using native cyanobacteria and their co-cultures isolated from extreme ecosystems in Sri Lanka" was conducted at the NIFS under the supervision of **Prof. R. Rathnayake** from 2024-07-01 to 2024-10-28.

45. Mr. K.B. Samarasundera graduated from Institute of Chemistry Ceylon in year 2024. The research project on "Catalytic reaction for Zeolite material" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2023-10-19 to 2024-11-20.

46. Ms. S.A.P.M. Bandara graduated from University of Jayawardanapura in year 2024. The research project on "Microplastic Analysis" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2023-10-23 to 2024-11-20.

47. Ms. A.M. Hasara graduated from Sabaragamuwa University in year 2024. The research project on "Fluoride removal from drinking water using gamma iron-oxide coated metakaolin" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2024-01-29 to 2024-12-02.

48. Ms. K.P.B. Prasadini graduated from Sabaragamuwa University of Sri Lanka in year 2024. The research project on "Investigating the potential of in-vitro developed perchlorate reducing fungal-bacterial biofilms for bioremediation on Mars" was conducted at the NIFS under the

supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna,** from 2024-07-15 to 2024-12-06.

49. Ms. H.A.I.A. Hettiarachchi graduated from University of Colombo in year 2024. The research project on "Comparative Analysis to Determine the Presence of Atmospheric Microplastic in selected places in Kandy, Colombo and Kurunegala, Sri Lanka" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2024-06-26 to 2024-12-15.

50. Mr. M.D.C.P. Gunathilaka graduated from University of Colombo in year 2024. The research project on "Removal of copper (Cu^{2+}) ions from aqueous media using iron oxide coated sand: A comparative analysis between different scale" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2024-07-15 to 2024-12-15.

51. Ms. T.S.B. Mahanama graduated from Rajarata University of Sri Lanka in year 2024. The research project on "Investigating nutritional and functional properties of cooked rice from raw and parboiled selected improved varieties available in Sri Lanka" was conducted at the NIFS under the supervision of Mrs. C.A.K. Dissanayake, and **Prof. R. Liyanage** from 2024-06-10 to 2024-11-20.

52. Ms. A.M.G.R.D. Abeysinghe graduated from University of Peradeniya in year 2024. The research project on "Investigation of effect of sulphate in humic substances extracted from drinking water" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna,** and Dr.W.M.A.T. Bandara from 2024-03-01 to 2024-12-20.

53. Ms. S.A.C.P. Samaraweera graduated from University of Peradeniya in year 2024. The research project on "Modification of Faujasite zeolite catalyst for phenol vapor reactions" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna,** and W.M.A.T. Bandara from 2024-03-01 to 2024-12-20.

54. Mr. J.M.S.G.B. Navarathne graduated from University of Peradeniya in year 2024. The research project on "Testing of Gas Sensing Performance of Zeolite-Modified ZnO Nano materials and Air Pollution Monitoring in Galaha Junction" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna,** and W.M.A.T. Bandara from 2024-03-01 to 2024-12-20.

55. Ms. H.R.M.S. Hapugoda graduated from University of Peradeniya in year 2024. The research project on "Catalytic conversion of 2-chlorophenol in atmospheric condition using copper incorporated Boro-alumino LTA type zeolite" was conducted at the NIFS under the supervision of **Dr. L. Jayarathna,** and W.M.A.T. Bandara from 2024-03-01 to 2024-12-20.

56. Ms. P.G.S.M. Silva graduated from Sabaragamuwa University of Sri Lanka, in year 2024. The research project on In vitro antifungal potential of *Diplodiscus verrucosus*, *Pterospermum suberifolium* and *Chloroxylon swietenia* against human pathogenic fungi was conducted at the NIFS under the supervision of **Prof. D.S.A. Wijesundara** from 2023-12-04 to 2024-08-21.

57. Mr. B.V.C.M. Benaragama graduated from Institute of Chemistry Ceylon in year 2024. The research project on Microplastic analysis of leachate and soil of Gohagoda damsite was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2023-10-19 to 2024-11-20.

58. Mr. T. Kumaresh graduated from University of Colombo in year 2024. The research project on Environmental Science was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2022-06-15 to 2024-12-01.

59. Mr. H.P.B.S.T.D. Silva graduated from University of Peradeniya in year 2024. The research project on Synthesis and characterization of zeolite catalysts was conducted at the NIFS under the supervision of **Dr. L. Jayarathna** from 2023-07-01 to 2024-12-20

60. Mr. W.A.A.J.J. Weerasuriya graduated from Sri Lanka International Buddhist Academy in year 2024. The research project on Creating a npm package for simplify mern app was conducted at the NIFS under the supervision of **Prof. S.R. Kodituwakku** from 2024-01-27 to 2024-10-31

61. Ms. W.M.S.U. Weerakoon from Uva Wellassa University completed the undergraduate research project on "Development of Duckweed (*Lemnacea*) powder incorporates cookies and evaluation of its physiochemical, nutritional, microbial, functional, and sensory properties" at the NIFS under the supervision of Prof. W. A. J. P. Wijesinghe, and **Prof. R. Liyanage** from 2024-04-30 to 2024-07-11.

Undergraduate Industrial Training-Completed

1. Ms. R.T. Dissanayake from University of Peradeniya completed the undergraduate research project on Conservation biology of Eugenia haeckliana Trimen: A pathway to recovery at the NIFS under the supervision of **Dr. H.D. Jayasinghe,** Dr. R.H.G. Rani, Prof. D.K.N.G. Pushpakumara, and Prof. S.A.C.N. Perera from 2023-12-31 to 2024-10-12

2. Mr. D.M.N.B. Dissanayake from Bangalore University, India completed the Industrial Training at NIFS under the supervision of **Prof. R.R. Ratnayake** from 2022-12-01 to 2024-01-05.

3. Ms. M.S. Lakmali from University of Colombo completed the Industrial Training at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2023-07-10 to 2024-01-05.

4. Ms. P.H. Senanayake from Wayamba University of Sri Lanka completed the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2023-05-01 to 2024-01-10.

5. Ms. S.M. Weerasinghe from Sabaragamuwa University of Sri Lanka completed the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2023-05-01 to 2024-01-10.

6. Ms. M.H.F. Muzna from University of Kelaniya completed the Industrial Training at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2023-11-20 to 2024-02-29.

7. Mr. M.G.S.B. Marasinghe from University of Kelaniya completed the Industrial Training at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2023-11-20 to 2024-02-29.

8. Mr. I.G.D.S. Lankathilake from University of Ruhuna completed the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-03-11 to 2024-04-09.

9. Ms. H.A.N.S. Hidellaarachchi from University of Ruhuna completed the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-03-11 to 2024-04-09.

10. Mr. M. Safraz from University of Ruhuna completed the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-03-11 to 2024-04-09.

11. Ms. C. Premasinghe from University of Ruhuna completed the Industrial Training at NIFS under the supervision of **Prof. L. Jayasinghe** from 2024-03-11 to 2024-04-20.

12. Ms. L.D. Abeywickrama from Sri Lanka Institute of Information Technology completed the Industrial Training at NIFS under the supervision of **Prof. R. Liyanage,** and Dr. R. Mathangadeera from 2024-04-01 to 2024-06-18.

13. Mr. U.G.D.U. Gamage from University of Bristol, United Kingdom completed the Industrial Training at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** from 2024-06-18 to 2024-09-04.

14. Ms. J.M.P.A. Jayesekara from National School of Business Management completed the Industrial Training at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** from 2024-06-05 to 2024-09-05.

15. Ms. M.A. Aysha from MILA University completed the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** from 2024-07-08 to 2024-09-17.
16. Ms. R. Maheswaran from University of Ruhuna completed the Industrial Training at NIFS under the supervision of **Prof. R.R. Ratnayake** from 2024-06-04 to 2024-09-25.

17. Ms. K. Mahendraraj from University of Ruhuna completed the Industrial Training at NIFS under the supervision of **Prof. R.R. Ratnayake** from 2024-06-04 to 2024-09-25

18. Mr. L.A.N. Deshan from Rajarata University of Sri Lanka completed the Industrial Training at NIFS under the supervision of **Prof. R. Rathnayake** from 2024-07-01 to 2024-10-25.

19. Ms. T. Wijepala from University of Ruhuna completed the Industrial Training at NIFS under the supervision of **Prof. R.R. Ratnayake** from 2024-09-02 to 2024-10-25.

20. Mr. J.T.P.H. Jayalath from NSBM Green University of Sri Lanka completed the Industrial Training at NIFS under the supervision of **Prof. R. Rathnayake** from 2024-07-22 to 2024-12-06.

21. Ms. C. Pitawala from NSBM Green University completed the Industrial Training at NIFS under the supervision of **Prof. R.R. Ratnayake** from 2024-08-22 to 2024-12-06.

22. Ms. R.M.A.K.G. Senavirathne from Ocean University of Sri Lanka completed the Industrial Training at NIFS under the supervision of **Prof. R. Rathnayake** from 2024-09-09 to 2024-12-06.

23. Mr. A.K. Gamage from University of Jaffna completed the Industrial Training at NIFS under the supervision of **Prof. S.R. Kodituwakku** from 2023-09-01 to 2024-10-31.

Training as a Volunteer Research Assistants

1. Ms. M.A.D.M. Fernando was trained as a Research student at NIFS in the research area of "Food Science" under the supervision of **Prof. R. Liyanage** in 2024.

2. Ms. D.M.D.M. Dissanayake was trained as a Research student in the research area of Natural product chemistry at NIFS under the supervision of **Prof. L. Jayasinghe,** Prof. N.S. Kumar and **Prof. N.K.B. Adikaram** from 2019-10-24 to 2024-01-05.

3. Ms. R.A.K. Dissanayake was trained as a Research student in the research area of Molecular Microbiology at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2023-11-15 to 2024-01-31.

4. Mr. S.M.M.U. Sivirathne was trained as a Research student in the research area of Development of pvdf polymer-based gel-polymer electrolyte for lithium-ion batteries at NIFS under the supervision of **Dr. J.M.K.W. Kumari, Dr. H.W.M.A.C. Wijayasinghe,** and Dr. H.O. Wijewardane from 2023-09-01 to 2024-01-31.

5. Ms. U.G.W.S. Bowaddeniya was trained as a Research student in the research area of Bioactivity of methanolic leaf extracts of *Pterocarpus marsupium* and *Sauropus androgynus* at NIFS under the supervision of **Prof. L. Jayasinghe and Dr. N. Piyasena** in 2024

6. Ms. W.K.H.K. Welagedara was trained as a Research student in the research area of Molecular Microbiology and Human Diseases at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2023-04-17 to 2024-02-16.

7. Ms. R.G.S.D. Rambodagedara was trained as a Research student in the research area of Food science at NIFS under the supervision of **Prof. R. Liyanage** from 2023-02-13 to 2024-04-26.

8. Ms. S.S. Wijesundara was trained as a Research student in the research area of Microbiology at NIFS under the supervision of **Prof. R.R. Ratnayake** from 2023-01-16 to 2024-05-31.

9. Ms. D.M.C.L. Dissanayake was trained as a Research student in the research area of Molecular Microbiology at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2024-02-14 to 2024-08-06.

10. Ms. H.M.N. Sasindi was trained as a Research student at NIFS in the research area of "Nutritional Biochemistry" under the supervision of **Prof. R. Liyanage** in 2024.

11. Mr. A.S. Rajapakshe was trained as a Research student in the research area of Molecular Microbiology and Human Diseases at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2024-06-06 to 2024-09-06.

12. Ms. H.A.C. Dias was trained as a Research student in the research area of Medical Microbiology at NIFS under the supervision of **Prof. R. Liyanage** from 2022-10-04 to 2024-08-13.

13. Ms. H.P.V.T. Hewawasam was trained as a Research student in the research area of Molecular Microbiology and Human Diseases at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** from 2024-05-13 to 2024-11-22.

14. Ms. K.W.D. Deepthika was trained as a Research student in the research area of zeolite synthesis, characterization and investigation of selectivity and reactivity at NIFS under the supervision of **Dr. L. Jayarathna,** and Dr. A. Bandara from 2024-04-29 to 2024-12-20.

15. Mr. D. Pasqual was trained as a Research student at NIFS in the research area of "Natural Products Chemistry" under the supervision of **Prof. L. Jayasinghe** in 2024.

M.Phil. Thesis submitted

1. Ms. W.R.U.A. Bandara from University of Peradeniya submitted the M.Phil. thesis titled "Characterization of extracellular vesicles from Tuberculosis patient sera: A potential source of

biomarker identification" on 2024-01-29. The research was conducted at NIFS under the supervision of **Prof. D.N. Magana-Arachchi**.

2. Ms. V.H.H. Nadeeshani from Faculty of Dental Sciences, University of Peradeniya submitted the M.Phil. thesis titled "Association of early childhood caries with nutritional status, oral health status and oral health-related quality of life in a sample of Sri Lankan children aged 4-5 years" on 2024-02-15. The research was conducted at NIFS under the supervision of **Prof. R. Liyanage,** Prof. E.M.U.C.K. Herath, Prof.R.D. Jayasinghe, and Prof. S.T. Kudagammana.

3. Ms. A.M. Rekasa from South Eastern University of Sri Lanka submitted the M.Phil. thesis titled "Production of Cereal-Incorporated Fish Sausages from Undervalued Fish Species" on 2024-03-18. The research was conducted at NIFS under the supervision of **Prof. J.M.N. Marikkar**.

4. Ms. S.M.N.S. Nirmani from University of Sri Jayewardenepura submitted the M.Phil. thesis titled "Effect of Functional Properties on enzymatic hydrolysis of Selected under-utilized flours in Sri Lanka" on 2024-12-30. The research was conducted at NIFS under the supervision of Dr. C. Jayathilake, Prof.Indira Wickramasinghe, **Prof. R. Liyanage,** and Dr. M. Jayasinghe.

5. Ms. W.M.S.N. Bandara from the University of Kelaniya submitted the M.Phil. thesis titled "Assessment of socio-demographic factors and accumulation of cyanotoxins and Hofmeister ions in crops and leafy vegetables: A Comparison of CKDu endemic and non-endemic areas." on 2024-12-31. The research was conducted at NIFS under the supervision of **Prof. D.N. Magana-Arachchi,** Prof. M.S. Vithanage, and Dr. R.P. Wanigatunge.

Undergraduate Thesis submitted

1. Ms. G.H.S.S. de Silva from University of Peradeniya submitted the Undergraduate thesis titled "Effect of Montmorillonite nanoclay in degrading selected bacterial biofilms" on 2025-01-06. The research was conducted at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna**.

2. Ms. H.M.N.D. Herath from University of Sri Jayewardenepura submitted the Undergraduate thesis titled "A Molecular Phylogenetic and Comparative Morpho- Anatomical Study on Some Selected *Madhuca* spp. (Sapotaceace) in Sri Lanka" on 2024-04-10. The research was conducted at NIFS under the supervision of **Dr. H.D. Jayasinghe**.

3. Ms. S.G.V.S.L. Sapugoda from NSBM Green University submitted the Undergraduate thesis titled "Potential of Biofilm Biofertilizer in Remediating Microplastic Pollution in Paddy Cultivation" on 2025-01-15. The research was conducted at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna**.

4. Ms. D.M.S.I.K. Weerasinghe from University of Sri Jayawardenapura submitted the Undergraduate thesis titled "Potential of biofilm biofertilizer in remediating microplastic pollution in rice cultivation" on 2025-01-15. The research was conducted at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna**.

5. Ms. K.A.D.E. Kahandawala from NSBM Green University submitted the Undergraduate thesis titled "Impact of Microplastics on Plant Growth and Yield of Rice" on 2025-01-15. The research was conducted at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna**.

6. Ms. G.G.H.M. Gamage from University of Peradeniya submitted the Undergraduate thesis titled "Impacts of Microplastics on maize growth and rhizosphere fungi" on 2025-01-17. The research

was conducted at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna**.

Postdoctoral Research work in progress

1. Dr. C.A. Thotawatthage conducted Postdoctoral research in the research area of Environmental Sciences at NIFS under the supervision of **Prof. D.N. Magana-Arachchi,** and Prof. C. Wickramasinghe from 2018-07-03 to 2024-12-31.

Ph.D. Research work in progress

1. Ms. H.M.S.K.H. Bandara is reading for a Ph.D. degree at University of Peradeniya in the research area of Natural Product Chemistry at NIFS under the supervision of **Prof. L. Jayasinghe,** and Dr. N. R. Amarasinghe since 2018-08-01.

2. Ms. A.T.D. Rathnathilaka is reading for a Ph.D. degree at University of Peradeniya in the research area of Microbiology at NIFS under the supervision of **Prof. G. Seneviratne** since 2018-10-15.

3. Ms. C. Wijerathna is reading for a Ph.D. degree at University of Southern Queensland in the research area of Plant Biotechnology, Plant Physiology, and Nanotechnology at NIFS under the supervision of **Prof. S. Seneweera,** and Prof. Steven Neate since 2019-02-25.

4. Ms. W.I. Sandamali is reading for a Ph.D. degree at Open University of Sri Lanka in the research area of Engineering nano-materials for photovoltaics at NIFS under the supervision of **Prof. G.K.R. Senadeera,** and **Prof. M.A.K.L. Dissanayake** since 2019-08-01.

5. Mr. P. Abeywardena is reading for a Ph.D. degree at University of Peradeniya in the research area of Petrology, Structural Geology at NIFS under the supervision of Dr. P.L. Dharmapriya, Prof. S. Malaviarachchi, and **Prof. N.D. Subasinghe** since 2019-08-07.

6. Mr. W.T.R.S. Fernando is reading for a Ph.D. degree at Postgraduate Institute of Science, University of Peradeniya in the research area of Cathode Development for Rechargeable Batteries at NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe** since 2020-12-08.

7. Mr. E.M.S. Ekanayake is reading for a Ph.D. degree at Uva Wellassa University in the research area of Conservation Biology at NIFS under the supervision of **Prof. R.R. Ratnayake** since 2021-04-27.

8. Ms. K.A.D.M.S. Sarathchandra is reading for a Ph.D. degree at University of Peradeniya in the research area of Antimony sulfide planar solar cells at NIFS under the supervision of **Prof. J. Bandara** since 2022-06-09.

9. Ms. M.P. Thilakarathna is reading for a Ph.D. degree at University of Sri Jayewardenepura in the research area of A study on geostructural features on low-enthalpy geothermal fields and the role of dolerite dykes with special reference to Nelumwewa hot spring. at NIFS under the supervision of **Prof. N.D. Subasinghe,** and Prof. S. Gamage since 2023-01-01.

10. Ms. T.T. Fernando is reading for a Ph.D. degree at Wayamba University Sri Lanka in the research area of Development and feasibility evaluation of an ecosystem services model at NIFS under the supervision of **Prof. R.R. Ratnayake** since 2023-01-03.

11. Ms. B.V.N. Sewwandi is reading for a Ph.D. degree at University of Sri Jayewardenepura in the research area of Carbon nanomaterials, Computational Modeling, Water purification at NIFS under the supervision of Prof. A.R. Kumarasinghe, **Prof. R. Weerasooriya**, Dr. R.J.K. Udayana Ranatunga, Prof. Xing CHEN since 2024-01-01.

12. Ms. H.M.H.D.K. Naranpanawa is reading for a Ph.D. degree at University of Peradeniya in the research area of Graphite at NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** Prof. D.G.G.P. Karunarathna, and Dr. T.H.N.G. Amaraweera since 2024-08-01.

13. Mr. Z. Wu is reading for a Ph.D. degree at University of Peradeniya in the research area of Water Chemistry at NIFS under the supervision of **Prof. R. Weerasooriya,** Dr.C. Jayasundara, and Prof.Xing Chen since 2019-08-26.

M.Phil Research work in progress

1. Mr. D.R. Charles is reading for a M.Phil. degree at university of peradeniya in the research area of Geophysics at NIFS under the supervision of **Prof. N.D. Subasinghe** Prof. H.M.T.G.A. Pitawala since 2012-02-12.

2. Mr. P.L.C.U.S.B. Lekamge is reading for a M.Phil. degree at PGIS, University of Peradeniya in the research area of Forest restoration and Conservation at NIFS under the supervision of **Prof. D.S.A. Wijesundara, Prof. M.C.M. Iqbal,** and Prof. H.M.S.P. Madawala since 2017-02-01.

3. Mrs. L.N. Manawadu is reading for a M.Phil. degree at University of Peradeniya in the research area of Post Harvest Pathology at NIFS under the supervision of **Prof. N.K.B. Adikaram, Prof. L. Jayasinghe,** and Prof. D. Yakandawala since 2017-09-15.

4. Ms. H.S.T. Kaushalya is reading for a M.Phil. degree at University of Peradeniya in the research area of Chemistry at NIFS under the supervision of **Prof. L. Jayasinghe,** Prof. N. S. Kumar, and **Prof. N.K.B. Adikaram** since 2018-04-02.

5. Ms. B.M.S. Nilmini is reading for a M.Phil. degree at University of Peradeniya in the research area of Natural Product Chemistry at NIFS under the supervision of **Prof. L. Jayasinghe, Prof. N.K.B. Adikaram,** and Prof. N. S. Kumar since 2018-05-15.

6. Ms. S.S.K. Marasinghe is reading for a M.Phil. degree at University of Peradeniya in the research area of Food Chemistry at NIFS under the supervision of **Prof. J.M.N. Marikkar** since 2018-06-01.

7. Ms. D.D.M.O. Dissanayake is reading for a M.Phil. degree at Postgraduate Institute of Science, University of Peradeniya in the research area of Soil Carbon sequestration at NIFS under the supervision of **Dr. R.R. Ratnayake,** and **Prof. S. Seneweera** since 2018-07-26.

8. Mr. S.M.D.M.C. Senarathna is reading for a M.Phil. degree at University of Peradeniya in the research area of Air pollution monitoring and modelling at NIFS under the supervision of **Dr. G. Bowatte** and **Prof. R. Weerasooriya** since 2018-09-25.

9. Ms. G. Wijesinghe is reading for a M.Phil. degree at University of Peradeniya in the research area of Sedimentology, Mineral Exploration at NIFS under the supervision of Dr. P.L. Dharmapriya, Dr. S. Malaviarachchi, Mr. M. Satish-Kumar, and **Prof. N.D. Subasinghe** since 2018-11-24.

10. Mr. J.H.T.B. Jayamaha is reading for a M.Phil. degree at University of Jaffna in the research area of Novel Electrolyte and Electrode Materials for Secondary Sodium-ion and Magnesium-ion Batteries at NIFS under the supervision of Dr. K. Vignarooban, and **Dr. H.W.M.A.C. Wijayasinghe** since 2019-01-01.

11. Ms. W.B.C.P. Weerarathne is reading for a M.Phil. degree at University of Peradeniya in the research area of Asbestos-Related Occupational Health at NIFS under the supervision of **Prof. D.N. Magana-Arachchi,** Dr A. Wijayasinghe, and **Dr. M. Vithanage** since 2019-02-02.

12. Mr. R.A. Rathnayake is reading for a M.Phil. degree at University of Peradeniya in the research area of Thermoelectricity at NIFS under the supervision of **Prof. N.D. Subasinghe,** and Dr. B.M.K. Pemasiri since 2020-01-27.

13. Ms. S.H. Hettiarachchi is reading for a M.Phil. degree at Postgraduate Institute of Science, University of Peradeniya in the research area of Electrospun Nanofibers, Dye sensitized solar cells, Nanofiber water filter at NIFS under the supervision of **Prof. M.A.K.L. Dissanayake,** and **Prof. G.K.R. Senadeera** since 2020-11-16.

14. Ms. M.D.R. Perera is reading for a M.Phil. degree at University of Peradeniya in the research area of Materials Chemistry at NIFS under the supervision of **Dr. L. Jayarathna** since 2020-11-16.

15. Ms. R.A.L.R. Amarasena is reading for a M.Phil. degree at University of Peradeniya in the research area of Material Chemistry at NIFS under the supervision of **Dr. L. Jayarathna** since 2020-11-24.

16. Ms. A.M. Rekasa is reading for a M.Phil. degree at South Eastern University of Sri Lanka in the research area of Food Science and Technology at NIFS under the supervision of **Prof. J.M.N. Marikkar** since 2021-03-01.

17. Ms. B.S.K. Ulpathakumbura is reading for a M.Phil. degree at University of Peradeniya in the research area of Food Chemistry at NIFS under the supervision of **Prof. J.M.N. Marikkar,** and **Prof. L. Jayasinghe** since 2021-07-13.

18. Mr. K.M.N.S. Bandara is reading for a M.Phil. degree at University of Peradeniya in the research area of Optimization of the CdS layer (prepared by Closed Space Sublimation method) in CdS/CdTe thin film solar cells. at NIFS under the supervision of **Prof. M.A.K.L. Dissanayake,** Dr. D.M.V.A. Seneviratne, and Dr. E.N. Jayaweera since 2021-09-17.

19. Mr. A.G.C.N. Wkulanganaijerathna is reading for a M.Phil. degree at University of Peradeniya in the research area of Solar Water Splitting at NIFS under the supervision of **Prof. J. Bandara** since 2021-11-25.

20. Mr R. Brahmanage is reading for a M.Phil. degree at University of Colombo in the research area of Fungi in Eucalyptus plantations at NIFS under the supervision of **Prof. D.S.A. Wijesundara,** Prof. Nalin Wijayawardena, Prof Sameera Ariyawansa, and Prof. Chandrika Nanayakkara since 2022-01-01.

21. Ms. M.A. Wickramasinghe is reading for a M.Phil. degree at University of Peradeniya in the research area of Food and Nutrition at NIFS under the supervision of **Prof. R. Liyanage,** Prof. T. Madujith, Prof.Fruhling Vesta Rijsdijk, Dr. Helena Zavos, Prof. R. Jayawardena, and Prof. A. Sumathipala since 2022-02-28.

22. Ms. M.I.U. Weerasinghe is reading for a M.Phil. degree at University of Peradeniya in the research area of Solar Energy at NIFS under the supervision of Prof. T.M.W.J. Bandara, and **Prof. G.R.A. Kumara** since 2022-03-15.

23. Ms. H.M.N.P. Herath is reading for a M.Phil. degree at University of Peradeniya in the research area of Natural products at NIFS under the supervision of **Prof. L. Jayasinghe,** and Dr. D. Perera since 2022-05-06.

24. Ms. H.M.S.A.T. Gunathilaka is reading for a M.Phil. degree at University of Peradeniya in the research area of Molecular Microbiology at NIFS under the supervision of **Prof. D.N. Magana-Arachchi,** and Dr. W.R.P. Wijesinghe since 2022-05-23.

25. Mr. R.P.P.D. Rajakaruna is reading for a M.Phil. degree at University of Peradeniya in the research area of Solar cells at NIFS under the supervision of **Prof. J. Bandara** since 2022-06-09.

26. Mr. D.M.G. Dayananda is reading for a M.Phil. degree at University of Peradeniya in the research area of Zoology at NIFS under the supervision of **Prof. S.P. Benjamin,** and Prof.I. Karunarathne since 2022-08-01.

27. Ms. H.K.G.B.M. Premarathne is reading for a M.Phil. degree at Postgraduate Institute of Science, University of Peradeniya in the research area of Taxonomy of mushrooms at NIFS under the supervision of **Prof. D.S.A. Wijesundara** since 2022-10-01.

28 Mr. A.E. Gunasekaran is reading for a M.Phil. degree at University of Peradeniya in the research area of Computer Science at NIFS under the supervision of **Prof S. R. Kodituwakku**, and Dr. R. D. Nawarathna since 2022-11-08.

29. Ms. C. Bandara is reading for a M.Phil. degree at Postgraduate Institute of Science, University of Peradeniya in the research area of Potential of Cyanobacteria for value addition at NIFS under the supervision of **Prof. R.R. Ratnayake** since 2022-12-12.

30. Ms. H.R.P. Prasadini is reading for a M.Phil. degree at University of Peradeniya in the research area of Food Science at NIFS under the supervision of **Prof. R. Liyanage** since 2022-12-20.

31. Ms. A. Muralitharan is reading for a M.Phil. degree at University of Peradeniya in the research area of Soil science at NIFS under the supervision of **Prof. R.R. Ratnayake** since 2022-12-21.

32. Mr. K.G.S.N. Samaraweera is reading for a M.Phil. degree at University of Peradeniya in the research area of Computer Science at NIFS under the supervision of **Prof S.R. Kodituwakku**, and Dr. R.D. Nawarathna since 2023-01-04.

33. Mr. P. Manamendra is reading for a M.Phil. degree at Postgraduate Institute of Science, University of Peradeniya in the research area of Soil Carbon sequestration in wetland ecosystems at NIFS under the supervision of **Prof. R.R. Ratnayake** since 2023-02-07.

34. Ms. D. Hewawasam is reading for a M.Phil. degree at University of Moratuwa in the research area of Development of a commercial type lithium-ion battery using Sri Lankan graphite at NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** Dr. S. Witharana, Dr. L. Subasinghe, Dr. T.H.N.G. Amaraweera, and Prof. I. Albinsson since 2023-02-14.

35. Ms. H.F. Fahmidah is reading for a M.Phil. degree at University of Peradeniya in the research area of Food Chemistry at NIFS under the supervision of **Prof. J.M.N. Marikkar,** and **Prof. L. Jayasinghe** since 2023-03-29.

36. Ms. M.A.K. Madhumekala is reading for a M.Phil. degree at University of Peradeniya in the research area of Synthesis and characterization of Boron modified zeolites for catalytic activity at NIFS under the supervision of **Dr. L. Jayarathna,** and Dr.W.M.A.T. Bandara since 2023-06-01.

37. Ms. S.H.U. Hansani is reading for a M.Phil. degree at University of Peradeniya in the research area of Earth Science at NIFS under the supervision of **Prof. R. Weerasooriya,** Dr. P.L. Dharmapriya, and Prof. Yawei WANG since 2023-07-17.

38. Mr. S.M.M.U. Sivirathna is reading for a M.Phil. degree at University of Peradeniya in the research area of Graphite at NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** and Dr. T.H.N.G. Amaraweera since 2024-10-06.

39. Ms. P.U. Sandunika is reading for a M.Phil. degree at University of Peradeniya in the research area of Solar Cells at NIFS under the supervision of **Prof. M.A.K.L. Dissanayake,** and **Prof. G.K.R. Senadeera** and **Dr. J.M.K.W. Kumari** since 2023-09-01.

40. Ms. W.D.U. Premarathna is reading for a M.Phil. degree at University of Peradeniya in the research area of Soil Science at NIFS under the supervision of **Prof. Ratnayake R.R.** since 2023-10-02.

41. Ms. K.M.R.K.T. Herath is reading for a M.Phil. degree at University of Peradeniya in the research area of Zoology at NIFS under the supervision of **Prof. S.P. Benjamin,** and Prof. I. Karunarathne since 2023-10-17.

42. Ms. W.M.H.U. Wijerathna is reading for a M.Phil. degree at University of Peradeniya in the research area of Zoology at NIFS under the supervision of **Prof. S.P. Benjamin,** Prof. I. Karunarathna, and Dr. S. Ranasinghe since 2023-10-17.

43. Mrs. N. Aruchchunan is reading for a M.Phil. degree at University of Peradeniya in the research area of Microbial biotechnology research program at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-01-01.

44. Mr. M.M.A.K. Mannapperuma is reading for a M.Phil. degree at University of Peradeniya in the research area of Materials development- Catalysts at NIFS under the supervision of **Dr. L. Jayarathna** since 2024-01-04.

45. Mr. S.A. Perera is reading for a M.Phil. degree at Rajarata University of Sri Lanka in the research area of Agriculture at NIFS under the supervision of **Dr. H.D. Jayasinghe** since 2024-01-11.

46. Mr. Y.G.A.D.K. Bandara is reading for a M.Phil. degree at University of Peradeniya in the research area of Natural Products Chemistry at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-02-01.

47. Ms. J.M.Y.U. Jayakodi is reading for a M.Phil. degree at University of Peradeniya in the research area of Food Science and Nutrition at NIFS under the supervision of **Prof. R. Liyanage,** Prof. W.M.T. Madhujith, Prof. R. Jayawardena, and Prof. A. Chandrasekara since 2024-03-15.

48. Ms. M.G.R. Shyamamala is reading for a M.Phil. degree at University of Peradeniya in the research area of Thermoelectricity at NIFS under the supervision of **Prof. N.D. Subasinghe,** and Prof. T.M.W.J. Bandara since 2024-03-22.

49. Ms. J.A.D.K.N.N. Jayakody is reading for a M.Phil. degree at University of Peradeniya in the research area of Antimicrobial Resistance bacteria in Paddy soils under Bio-Organo-Mineral Practice at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

50. Ms. S.D.P.N. Jayasinghe is reading for a M.Phil. degree at University of Peradeniya in the research area of Microbial biotechnology research program at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

51. Mr. S.N.B. Ekanayake is reading for a M.Phil. degree at University of Peradeniya in the research area of Microbial biotechnology research program at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

52. Ms. A.J.M.S.H. Jayasekara is reading for a M.Phil. degree at University of Peradeniya in the research area of Microbial biotechnology research program at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

53. Mr. H.A.K.D. Premasiri is reading for a M.Phil. degree at Univerisity of Peradeniya in the research area of Natural Products Chemistry at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-07-17.

54. S.A.D. Chathurangi is reading for a M.Phil. degree at University of Peradeniya in the research area of Natural Products Chemistry at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-07-17.

55. Ms. G.G.S. Sewwandi is reading for a M.Phil. degree at - in the research area of Applications of quantum dots in dye sensitized solar cells and bio-medical sensors at NIFS under the supervision of **Prof. M.A.K.L. Dissanayake, Prof. G.K.R. Senadeera,** and **Dr. J.M.K.W. Kumari** since 2024-08-01.

M.Sc. Research work in progress

1. Ms. S. Jayalath, M.Sc. student of Postgraduate Institute of Agriculture, University of Peradeniya is conducting the M.Sc. research project in the research area of "Microbiology and Molecular biology" at the NIFS under the supervision of **Prof. R.R. Ratnayake** since 2016-01-06.

2. Mr. D.A.N.C. Abeysekara, M.Sc. student of PGIS, University of Peradeniya is conducting the M.Sc. research project in the research area of "Nanoscience and nanotechnology" at the NIFS under the supervision of **Prof. G.R.A. Kumara,** and Prof. R.M.G. Rajapakse since 2018-04-02.

3. Mr. S.A.D.A.V. Sumithraarachchi, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Water Purification" at the NIFS under the supervision of **Prof. J. Bandara** since 2018-06-18.

4. Ms. J.M.R.V. Jayasundara, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Photocatalysts" at the NIFS under the supervision of **Prof. J. Bandara** since 2020-11-21.

5. Ms. A.M.A.M. Abeysinghe, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Geothermal" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2020-12-01.

6. Mr. H.W. Gardiarachchi, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Dye-sensitized solar cells" at the NIFS under the supervision of **Prof. G.R.A. Kumara,** and Prof. R.M.G. Rajapakse since 2021-10-21.

7. Ms. T.D.A.D.K. Kulathunge, M.Sc. student of University of Kelaniya is conducting the M.Sc. research project in the research area of "Natural products" at the NIFS under the supervision of **Prof. L. Jayasinghe** since 2022-04-01.

8. Mr. D.C. Rajapakse, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Water Splitting with aid of thin film photocatalytic surface" at the NIFS under the supervision of **Prof. J. Bandara** since 2022-06-12.

9. Ms. A. Karunarathne, M.Sc. student of Postgraduate Institute of Science, University of Peradeniya is conducting the M.Sc. research project in the research area of "Quantum dot sensitized solar cells" at the NIFS under the supervision of Mr. T.M.W.J. Bandara, and **Prof. M.A.K.L. Dissanayake** since 2022-07-17.

10. Mrs. B.N. Madumithili, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Software Engineering, Project Management." at the NIFS under the supervision of **Prof. S.R. Kodituwakku** since 2023-01-30.

11. Ms. A.R.G.T.K. Agalawela, M.Sc. student of Postgraduate Institute of Agriculture, University of Peradeniya is conducting the M.Sc. research project in the research area of "Plant Taxonomy" at the NIFS under the supervision of **Prof. D.S.A. Wijesundara,** Dr. N. Sirimalwatte, and Prof. S. C. Karunarathna since 2023-04-03.

12. Ms. M.F.F. Sazna, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Food Chemistry" at the NIFS under the supervision of **Prof. J.M.N. Marikkar,** and Prof. T. Madujith since 2024-01-16.

13. Ms. I. Rathnayaka, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Food and nutrition" at the NIFS under the supervision of **Prof. R. Liyanage,** and Dr. K. M. Mohotti since 2024-03-28.

14. Mr. U.R.P.T. Rajapaksha, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Dye-sensitized solar cells" at the NIFS under the supervision of **Prof. G.R.A. Kumara,** Prof. R.M.G. Rajapakse, and Dr. K.D.M.S.P.K. Kumarasinghe since 2024-05-15.

15. Ms. U.G.W.S. Bowaddeniya, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Microplastic (Water quality research division)" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-08-01.

16. Mr. S.L.M.D.K.V. Samarathunga, M.Sc. student of University of Peradeniya is conducting the M.Sc. research project in the research area of "Dye-sensitized solar cells" at the NIFS under the supervision of **Prof. G.R.A. Kumara,** and Dr. K.D.M.S.P.K. Kumarasinghe since 2024-12-15.

B.Sc. Undergraduate Industrial Training in Progress

1. Ms. W.A.D.K. Senevinanda, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Water Purification" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2020-01-27.

2. Mr. R.M.K.A. Rathnayake, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Material Science" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2020-08-15.

3. Mr. N. Rajanayake, Undergraduate student of Faculty of Agriculture University of Peradeniya is conducting the research project in the research area of "Floristic information of Sri Lanka" at the NIFS under the supervision of **Prof. D.S.A. Wijesundara** since 2022-11-01.

4. Mr. R.M.S.S. Rasnayake, Undergraduate student of The Open University Sri Lanka is conducting the research project in the research area of "Solar cells" at the NIFS under the supervision of **Prof. G.K.R. Senadeera** since 2023-02-03.

5. Ms. W.M.S.K. Weerasekara, Undergraduate student of The Open University of Sri Lanka is conducting the research project in the research area of "Solar Cells" at the NIFS under the supervision of **Prof. G.K.R. Senadeera** since 2023-04-11.

6. Ms. T.B. Withanawasam, Undergraduate student of Open University Srilanka is conducting the research project in the research area of "Natural products" at the NIFS under the supervision of **Prof. L. Jayasinghe** since 2023-06-15.

7. Mr. K.B. Samarasundera, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Catalytic reaction for Zeolite material" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2023-10-19.

8. Ms. H.M.N.D. Herath, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Plant Biotechnology" at the NIFS under the supervision of **Dr. H.D. Jayasinghe** since 2023-10-20.

9. Ms. S.A.P.M. Bandara, Undergraduate student of University of Jayawardanapura is conducting the research project in the research area of "Microplastic Analysis" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2023-10-23.

10. Ms. K.A.D.E. Kahandawala, Undergraduate student of NSBM Green University is conducting the research project in the research area of "Microbial biotechnology research program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-01-01.

11. Ms. S.G.V.S.L. Sapugoda, Undergraduate student of NSBM Green University is conducting the research project in the research area of "Microbial biotechnology research program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-01-01.

12. Ms. A.M. Hasara, Undergraduate student of Sabaragamuwa University is conducting the research project in the research area of "Nano technology, Environmental Chemistry" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-01-29.

13. Mr. K. Rathnayake, Undergraduate student of Institute of Chemistry, Ceylon, Collage of Chemical Sciences is conducting the research project in the research area of "Biological Sciences" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-02-24.

14. Ms. D. Jayawardhane, Undergraduate student of Vavuniya Campus is conducting the research project in the research area of "Primate Biology" at the NIFS under the supervision of **Prof. W.P.J. Dittus** since 2024-03-04.

15. Mr. S.G.J. Madhawa, Undergraduate student of Uwa wellassa university of Sri Lanka is conducting the research project in the research area of "graphite" at the NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** and Dr. T.H.N.G. Amaraweera since 2024-12-23.

16. Ms. P.K.S.S. Alwis, Undergraduate student of Uva Wellassa University of Sri Lanka is conducting the research project in the research area of "graphite" at the NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** and Dr. T.H.N.G. Amaraweera since 2024-12-23.

17. Ms. G.H.S.S. de Silva, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

18. Ms. G.G.H.M. Gamage, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-05-01.

19. Ms. D.M.S.I.K. Weerasinghe, Undergraduate student of University of Sri Jayawardenapura is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-05-02.

20. Ms. L.B.M.S.N. Chandrarathne, Undergraduate student of University of Jaffna is conducting the research project in the research area of "Water Quality Research Program" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-05-20.

21. Mr. K.T. Weerarathna, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Agriculture" at the NIFS under the supervision of **Dr. H.D. Jayasinghe** since 2024-06-03.

22. Ms. I.M.S.S. Karunarathne, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Agriculture" at the NIFS under the supervision of **Dr. H.D. Jayasinghe** since 2024-06-03.

23. Mr. A.M.K.L. Abeykoon, Undergraduate student of Faculty of Science, University of Colombo is conducting the research project in the research area of "Plant systematics" at the NIFS under the supervision of **Dr. H.D. Jayasinghe**, and Mrs. H.S. Kathriarachchi since 2024-06-05.

24. Mr. T.M.H.G. Thilakarathna, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Solar cells" at the NIFS under the supervision of **Prof. M.A.K.L. Dissanayake, Prof. G.K.R. Senadeera,** and **Dr. J.M.K.W. Kumari** since 2024-06-10.

25. Ms. H.N. Anuththara, Undergraduate student of The Rajarata University of Sri Lanka is conducting the research project in the research area of "Electrolytes" at the NIFS under the supervision of **Dr. J.M.K.W. Kumari** since 2024-06-13.

26. Ms. T. Senevirathna, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Soil Science" at the NIFS under the supervision of **Prof. R. R. Ratnayake** since 2024-07-01.

27. Ms. C.B.D. Kolamunna, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Solar Cells" at the NIFS under the supervision of **Prof. M.A.K.L. Dissanayake, Prof. G.K.R. Senadeera,** and **Dr. J.M.K.W. Kumari** since 2024-08-06.

28. Ms. A.K.R.D.A.K. Kahandawa, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-09-12.

29. Ms. H.K.D. Herath, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Dr**. **M. Premarathna,** and **Prof. G. Seneviratne,** since 2024-10-23.

30. Mr. D.C.M.N.L. Dharmaphriya, Undergraduate student of Uva Wellassa University of Sri Lanka is conducting the research project in the research area of "Graphite" at the NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** and Dr. T.H.N.G. Amaraweera since 2024-10-23.

31. Mr. H. Dilshan, Undergraduate student of Southeastern University of Sri Lanka is conducting the research project in the research area of "Geophysics, Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-10-28.

32. Ms. E.M.S.S.K. Ekanayake, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Nutritional Biochemistry" at the NIFS under the supervision of **Prof. R. Liyanage,** and Dr. F. S. Idroos since 2024-11-01.

33. Ms. R. Thasmila, Undergraduate student of South Eastern University of Sri Lanka is conducting the research project in the research area of "Food Chemistry" at the NIFS under the supervision of **Prof. J.M.N. Marikkar,** and Dr. U. Abdul Majeed since 2024-11-05.

34. Ms. U.I. Hettiarachchi, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-11-07.

35. Ms. M.N.F. Yushra, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-11-07.

36. Ms. W.M.Y.B. Wanninayake, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-11-11.

37. Ms. D.M.N. Dissanayake, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Dye sensitized solar cells" at the NIFS under the supervision of **Prof. G.R.A. Kumara,** and Dr. T. Senapathi since 2024-11-11.

38. Ms. R.A.K. Dissanayake, Undergraduate student of Sri Lanka Institute of Information Technology is conducting the research project in the research area of "Microbiology, Molecular Biology" at the NIFS under the supervision of **Prof. D.N. Magana-Arachchi** since 2024-11-11.

39. Ms. H.M.P.H.K. Herath, Undergraduate student of Sri Lanka Institute of Information Technology (SLIIT) is conducting the research project in the research area of "Microbiology" at the NIFS under the supervision of **Dr. R.R. Ratnayake** since 2024-11-12.

40. Ms. U.D. Karunarathne, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Development of quantum dots-based detection method for microplastics identification" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-11-13.

41. Ms. M.W.S.G. Withanawasam, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Water chemistry" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-11-18.

42. Ms. D.N.F. Shahnaz, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Water chemistry, water purification" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-11-18.

43. Mr. L.A.N. Deshan, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Microbiology" at the NIFS under the supervision of **Prof. R.R. Ratnayake** since 2024-11-27.

44. Ms. H.M.N.K. Balawardhana, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Spectroscopic investigation of degradation of chlorophenol with zeolite-based catalyst" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-12-02.

45. Mr. W.E.M.D.D. Ekanayake, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Synthesis of nanoparticles with continuous steam flow" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-12-02.

46. Ms. P.A.N.U. Wijesekara, Undergraduate student of University of Colombo is conducting the research project in the research area of "Soil Science" at the NIFS under the supervision of **P rof. R.R. Ratnayake,** and **Prof. D.S.A. Wijesundara** since 2024-12-19.

47. Ms. S.K. Dantanarayana, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Nutritional Biochemistry" at the NIFS under the supervision of Prof. N.P. Rajapakse, Prof. B.E.P. Mendis, and **Prof. R. Liyanage** since 2024-12-20.

B.Sc. Undergraduate projects in Progress

1. Ms. W.A.D.K. Senevinanda, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Water Purification" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2020-01-27.

2. Mr. R.M.K.A. Rathnayake, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Material Science" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2020-08-15.

3. Mr. N. Rajanayake, Undergraduate student of Faculty of Agriculture University of Peradeniya is conducting the research project in the research area of "Floristic information of Sri Lanka" at the NIFS under the supervision of **Prof. D.S.A. Wijesundara** since 2022-11-01.

4. Mr. R.M.S.S. Rasnayake, Undergraduate student of The Open University Sri Lanka is conducting the research project in the research area of "Solar cells" at the NIFS under the supervision of **Prof. G.K.R. Senadeera** since 2023-02-03.

5. Ms. W.M.S.K. Weerasekara, Undergraduate student of The Open University of Sri Lanka is conducting the research project in the research area of "Solar Cells" at the NIFS under the supervision of **Prof. G.K.R. Senadeera** since 2023-04-11.

6. Ms. T.B. Withanawasam, Undergraduate student of Open University Srilanka is conducting the research project in the research area of "Natural products" at the NIFS under the supervision of **Prof. L. Jayasinghe** since 2023-06-15.

7. Mr. K.B. Samarasundera, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Catalytic reaction for Zeolite material" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2023-10-19.

8. Ms. H.M.N.D. Herath, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Plant Biotechnology" at the NIFS under the supervision of **Dr. H.D. Jayasinghe** since 2023-10-20.

9. Ms. S.A.P.M. Bandara, Undergraduate student of University of Jayawardanapura is conducting the research project in the research area of "Microplastic Analysis" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2023-10-23.

10. Ms. K.A.D.E. Kahandawala, Undergraduate student of NSBM Green University is conducting the research project in the research area of "Microbial biotechnology research program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-01-01.

11. Ms. S.G.V.S.L. Sapugoda, Undergraduate student of NSBM Green University is conducting the research project in the research area of "Microbial biotechnology research program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-01-01.

12. Ms. A.M. Hasara, Undergraduate student of Sabaragamuwa University is conducting the research project in the research area of "Nano technology, Environmental Chemistry" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-01-29.

13. Mr. K. Rathnayake, Undergraduate student of Institute of Chemistry, Ceylon, College of Chemical Sciences is conducting the research project in the research area of "Biological Sciences" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-02-24.

14. Ms. W.D.N.V. Dharmasiri, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2025-10-20.

15. Ms. C. Ekanayake, Undergraduate student of National institute of fundamental studies is conducting the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-07-03.

16. Mr. P. Jayaweera, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-07-03.

17. Mr. S. Sanojan, Undergraduate student of Uva Wellassa university is conducting the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-01-30.

18. Ms. Uvini Kodithuwakku, Undergraduate student of University of Moratuwa is conducting the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-06-24.

19. Mr. H.M.N.P.P. Kumara (S/18/175) Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 25-06-2024.

20. Mr. K.M.U.S. Chathuranga (UWU/MRT/19/038) from Uva Wellassa conducted the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since on 02-04-2024.

21. Mr. I.L.C.S. Wickramarathna from postgraduate institute of science university of peradeniya conducted the research project in the research area of "Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 24-12-2024.

22. Ms. D. Jayawardhane, Undergraduate student of Vavuniya Campus is conducting the research project in the research area of "Primate Biology" at the NIFS under the supervision of **Prof. W.P.J. Dittus** since 2024-03-04.

23. Ms. D.D. Jayawardhane, Undergraduate student of University of Jaffna, Vavuniya Campus is conducting the research project in the research area of "Primate Biology" at the NIFS under the supervision of **Prof. W.P.J. Dittus** since 2024-03-04.

24. Ms. G.H.S.S. de Silva, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

25. Ms. G.G.H.M. Gamage, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-05-01.

26. Ms. D.M.S.I.K. Weerasinghe, Undergraduate student of University of Sri Jayawardenapura is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-05-02.

27. Ms. L.B.M.S.N. Chandrarathne, Undergraduate student of University of Jaffna is conducting the research project in the research area of "Water Quality Research Program" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-05-20.

28. Mr. K.T. Weerarathna, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Agriculture" at the NIFS under the supervision of **Dr. H.D. Jayasinghe** since 2024-06-03.

29. Ms. I.M.S.S. Karunarathne, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Agriculture" at the NIFS under the supervision of **Dr. H.D. Jayasinghe** since 2024-06-03.

30. Mr. A.M.K.L Abeykoon, Undergraduate student of Faculty of Science, University of Colombo is conducting the research project in the research area of "Plant systematics" at the NIFS under the supervision of **Dr. H.D. Jayasinghe**, and Mrs. H.S. Kathriarachchi since 2024-06-05.

31. Mr. T.M.H.G. Thilakarathna, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Solar cells" at the NIFS under the supervision of **Prof. M.A.K.L. Dissanayake, Prof. G.K.R. Senadeera,** and **Dr. J.M.K.W. Kumari** since 2024-06-10.

32. Ms. H.N. Anuththara, Undergraduate student of The Rajarata University of Sri Lanka is conducting the research project in the research area of "Electrolytes" at the NIFS under the supervision of **Dr. J.M.K.W. Kumari** since 2024-06-13.

33. Ms. T. Senevirathna, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Soil Science" at the NIFS under the supervision of **Prof. R.R. Ratnayake** since 2024-07-01.

34. Ms. C.B.D. Kolamunna, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Solar Cells" at the NIFS under the supervision of **Prof. M.A.K.L. Dissanayake, Prof. G.K.R. Senadeera,** and **Dr. J.M.K.W. Kumari** since 2024-08-06.

35. Ms. A.K.R.D.A.K. Kahandawa, Undergraduate student of Open University of Sri Lanka is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-09-12.

36. Ms. H.K.D. Herath, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Microbial Biotechnology Research Program" at the NIFS under the supervision of **Dr. M. Premarathna,** and **Prof. G. Seneviratne,** since 2024-10-23.

37. Mr. D.C.M.N.L. Dharmaphriya, Undergraduate student of Uva Wellassa University of Sri Lanka is conducting the research project in the research area of "Graphite" at the NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** and Dr. T.H.N.G. Amaraweera since 2024-10-23.

38. Mr. H. Dilshan, Undergraduate student of Southeastern University of Sri Lanka is conducting the research project in the research area of "Geophysics, Geology" at the NIFS under the supervision of **Prof. N.D. Subasinghe** since 2024-10-28.

39. Ms. E.M.S.S.K. Ekanayake, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Nutritional Biochemistry" at the NIFS under the supervision of **Prof. R. Liyanage,** and Dr. F. S. Idroos since 2024-11-01.

40. Ms. R. Thasmila, Undergraduate student of South Eastern University of Sri Lanka is conducting the research project in the research area of "Food Chemistry" at the NIFS under the supervision of **Prof. J.M.N. Marikkar,** and Dr. U. Abdul Majeed since 2024-11-05.

41. Ms. U.I. Hettiarachchi, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-11-07.

42. Ms. M.N.F. Yushra, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-11-07.

43. Ms. W.M.Y.B. Wanninayake, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Natural Products Chemistry" at the NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-11-11.

44. Ms. D.M.N. Dissanayake, Undergraduate student of University of Sri Jayewardenepura is conducting the research project in the research area of "Dye sensitized solar cells" at the NIFS under the supervision of **Prof. G.R.A. Kumara,** and Dr. T. Senapathi since 2024-11-11.

45. Ms. R.A.K. Dissanayake, Undergraduate student of Sri Lanka Institute of Information Technology is conducting the research project in the research area of "Microbiology, Molecular Biology" at the NIFS under the supervision of **Prof. D.N. Magana-Arachchi** since 2024-11-11.

46. Ms. H.M.P.H.K. Herath, Undergraduate student of Sri Lanka Institute of Information Technology (SLIIT) is conducting the research project in the research area of "Microbiology" at the NIFS under the supervision of **Dr. R.R. Ratnayake** since 2024-11-12.

47. Ms. U.D. Karunarathne, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Development of quantum dots-based detection method for microplastics identification" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-11-13.

48. Ms. M.W.S.G. Withanawasam, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Water chemistry" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-11-18.

49. Ms. D.N.F. Shahnaz, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Water chemistry, water purification" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-11-18.

50. Mr. L.A.N. Deshan, Undergraduate student of Rajarata University of Sri Lanka is conducting the research project in the research area of "Microbiology" at the NIFS under the supervision of **Prof. R.R. Ratnayake** since 2024-11-27.

51. Ms. H.M.N.K. Balawardhana, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Spectroscopic investigation of degradation of chlorophenol with zeolite-based catalyst" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-12-02.

52. Mr. W.E.M.D.D. Ekanayake, Undergraduate student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Synthesis of nanoparticles with continuous steam flow" at the NIFS under the supervision of **Dr. L. Jayarathna** since 2024-12-02.

53. Ms. P.A.N.U. Wijesekara, Undergraduate student of University of Colombo is conducting the research project in the research area of "Soil Science" at the NIFS under the supervision of **Prof. R.R. Ratnayake,** and **Prof. D.S.A. Wijesundara** since 2024-12-19.

54. Ms. S.K. Dantanarayana, Undergraduate student of University of Peradeniya is conducting the research project in the research area of "Nutritional Biochemistry" at the NIFS under the supervision of Prof. N.P. Rajapakse, Prof. B.E.P. Mendis, and **Prof. R. Liyanage** since 2024-12-20.

55. Ms. P.K.S.S. Alwis, Undergraduate student of Uva Wellassa University of Sri Lanka is conducting the research project in the research area of "graphite" at the NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** and Dr. T.H.N.G. Amaraweera since 2024-12-23.

56. Mr. S.G.J. Madhawa, Undergraduate student of Uwa wellassa university of Sri Lanka is conducting the research project in the research area of "graphite" at the NIFS under the supervision of **Dr. H.W.M.A.C. Wijayasinghe,** and Dr. T.H.N.G. Amaraweera since 2024-12-23.

Training as a Research Assistants

1. Ms. V. Devaraj is training as a Research student at NIFS in the research area of "Fractal Analysis" under the supervision of **Prof. N.D. Subasinghe** since 2022-08-01.

2. Ms. T.G.N.M.T. Bandara is training as a Research student at NIFS in the research area of "Research Observation and Internship" under the supervision of **Prof. M.A.K.L. Dissanayake,** and **Prof. G.K.R. Senadeera** since 2023-09-02.

3. Mr. A.M.L.E. Bandara is training as a Research student at NIFS in the research area of "Solar Cells" under the supervision of **Prof. M.A.K.L. Dissanayake,** and **Prof. G.K.R. Senadeera** since 2023-09-11.

4. Ms. T.R. Wekadapola is training as a Research student at NIFS in the research area of "Natural Products" under the supervision of **Prof. L. Jayasinghe** since 2023-09-20.

5. Mr. R.R.M.M.N.B. Bambaradeniya is training as a Research student at NIFS in the research area of "Activated carbon supercapacitors" under the supervision of **Prof. G.R.A. Kumara** since 2023-10-02.

6. Ms. D. Kahawita is training as a Research student at NIFS in the research area of "Microbiology and Soil Ecosystems" under the supervision of **Prof. R.R. Ratnayake** since 2023-11-29.

7. Ms. A.N. Premasinghe is training as a Research student at NIFS in the research area of "Natural Products Chemistry" under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-06-10.

8. Ms. T.G.M. Mihidula is training as a Research student at NIFS in the research area of "Water quality research" under the supervision of **Dr. L. Jayarathna** since 2024-07-16.

9. Mr. D.W.M.D.S. Chandrawansha is training as a Research student at NIFS in the research area of "Water quality research- microplastic" under the supervision of **Dr. L. Jayarathna** since 2024-08-06.

10. Ms. T.P.P.S. Wijemanna is training as a Research student at NIFS in the research area of "Microbial Biotechnology Program" under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-09-02.

11. Mr. K.M.N.K.B. Kuruppu is training as a Research student at NIFS in the research area of "Water Purification" under the supervision of **Prof. R. Weerasooriya** since 2024-10-03.

12. Mr. E.G.V.P. Chandrasekara is training as a Research student at NIFS in the research area of "Water purification" under the supervision of **Prof. R. Weerasooriya** since 2024-10-03.

13. Mr. M. Ranasinghe is training as a Research student at NIFS in the research area of "Soil Science" under the supervision of **Prof. R. Ratnayake** since 2024-10-21.

14. Ms. T.N. Dissanayake is training as a Research student at NIFS in the research area of "Nutritional Biochemistry" under the supervision of **Prof. R. Liyanage** since 2024-11-05.

15. Ms. K.V.P. Gunathilake is training as a Research student at NIFS in the research area of "Natural Products Chemistry" under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-12-04.

16. Ms. T. Hettiarachchi is training as a Research student in the research area of Primate Biology at NIFS under the supervision of **Prof. W.P.J. Dittus** since 2020-09-28.

17. Ms. N. Mudannayake is training as a Research student at NIFS student of Institute of Chemistry Ceylon is conducting the research project in the research area of "Water" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2022-10-03.

18. Ms. H.C. Hettiarachchi is training as a Research student at NIFS student of University of Peradeniya is conducting the research project in the research area of "Statistics" at the NIFS under the supervision of **Prof. R. Weerasooriya,** Prof. P. Wijekoon, and Dr. L.S. Nawarathna since 2022-12-01.

19. Ms. H.M.N.T. Bandara is training as a Research student in the research area of Molecular Microbiology at NIFS under the supervision of **Prof. D.N. Magana-Arachchi** since 2024-02-01.

20. Ms. A. Aslam is training as a Research student at NIFS student of ICBT Campus-Kandy is conducting the research project in the research area of "Microbiology" at the NIFS under the supervision of **Prof. R.R. Ratnayake** since 2024-02-02.

21. Mr. S. Witharana is training as a Research student at NIFS student of University of Mississippi is conducting the research project in the research area of "Geochemistry" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-03-09.

22. Mr. A.P.S.P. Jayathilaka is training as a Research student at NIFS student of University of Peradeniya is conducting the research project in the research area of "Supercapacitors" at the NIFS under the supervision of **Prof. G.R.A. Kumara** since 2024-03-18.

23. Ms. H.M.S.N. Deegala is training as a Research student at NIFS student of University of Peradeniya is conducting the research project in the research area of "Water Quality Research Programm" at the NIFS under the supervision of **Prof. R. Weerasooriya** since 2024-04-01.

24. Mr. P.D. Ariyasena is training as a Research student in the research area of Food Science at NIFS under the supervision of **Prof. R. Liyanage** since 2024-06-24.

25. Mr. N.G.S.D. Kumarasinghe is training as a Research student at NIFS student of The Open University of Sri Lanka is conducting the research project in the research area of "Soil Science" at the NIFS under the supervision of **Prof. R. Rathnayake** since 2024-07-15.

26. Mr. N. Rathnayake is training as a Research student in the research area of Soil Science at NIFS under the supervision of **Prof. R. Ratnayake** since 2024-10-28.

Undergraduate Industrial Training in Progress

1. Mr. V. Thilakanayaka from Chinese Academy of Sciences conducting the Industrial Training at NIFS under the supervision of **Prof. N.D. Subasinghe** since 2020-08-01.

2. Ms. K.A.D.E. Kahandawala from NSBM Green University conducting the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

3. Ms. S.G.V.S.L. Sapugoda from NSBM Green University conducting the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-04-01.

4. Ms. A.R.M.W.K. Rathnayake from University of Kelaniya conducting the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-10-07.

5. Ms. M.H.F. Hafna from University of Kelaniya conducting the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-10-07.

6. Ms. H.A.D. Hettigoda from Sri Lanka Institute of Information (SLIIT) conducting the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-11-04.

7. Mr. K.H.S.T. Nanayakkara from National School of Business Management conducting the Industrial Training at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-12-02.

8. Ms. W.M.K.A.K. Rathnayake from National Institute of Business Management conducting the Industrial Training at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-12-02.

9. Ms. S.W.M.R.M.P.R. Udalagama from NSBM Green University conducting the Industrial Training at NIFS under the supervision of **Prof. R.R. Ratnayake** since 2024-12-03.

10. Ms. S.A.R.N. Subhasinghe from National Institute of Business Management conducting the Industrial Training at NIFS under the supervision of **Prof. L. Jayasinghe,** and **Dr. N. Piyasena** since 2024-12-06.

11. Ms. Y. Weeraarchchi from NSBM Green University conducting the Industrial Training at NIFS under the supervision of **Prof. R. Ratnayake** since 2024-12-10.

12. Ms. D.K.C.N. Senarathna from Sri Lanka Institute of Information Technology (SLIIT) conducting the Industrial Training at NIFS under the supervision of **Prof. G. Seneviratne,** and **Dr. M. Premarathna** since 2024-12-30.

AWARDS & RECOGNITIONS

Awards

1. **Prof. S.P. Benjamin** received an International Award for World's Top 2% Scientists on 2024-08-30.

2. **Ms. T.K. Bowange** received the Research Excellence Award (Third place) for the outstanding research contribution during the 2023 academic year under Research Assistant category, National Institute of Fundamental Studies on 2024-03-28.

3. **Prof. M.A.K.L. Dissanayake** received an International Award for World's Top 2% Scientists on 2024-09-17.

4. **Prof. M.A.K.L. Dissanayake** received the National Award Doctor of Science (Honoris Causa) from University of Peradeniya on 2024-08-21.

5. **Prof. M.A.K.L. Dissanayake** received a National Competitive Award for SUSRED (Support Scheme for Supervision of Research Degrees) from NSF on 2024-04-04.

6. **Prof. M.A.K.L. Dissanayake** received a NIFS Outstanding Scientist for the outstanding research contribution during the 2023 academic year on 2024-03-26.

7. **Prof. M.A.K.L. Dissanayake** received the certificate of appreciation for ranked among the prestigious world's top 2% scientists list from National Institute of Fundamental Studies on 2024-03-28.

8. **Prof. M.A.K.L. Dissanayake** received the recognition of ranking as the number 1 scientist in Metallurgical & Materials Engineering in Sri Lanka and NIFS from AD Scientific Index, World Scientist and University Rankings on 2024-04-19.

9. **Prof. W.P.J. Dittus** received an International Competitive Award for Maternal care in wild toque macaques (*Macaca sinica*) involves prolonged lactation and interbirth intervals as adaptations to reduce maternal depletion and infant mortality in harsh environments on 2024-10-15.

10. **Mr. W.T.R.S. Fernando** received the Best Oral Presenter Award in the Second International Conference on Frontiers in Chemical Technology, the Institute of Chemistry Ceylon on 2024-06-22.

11. **Dr. L. Jayarathna** received a Presidential Award for Red-clay water filter body composition for removal of Arsenic, Cadmium and Fluoride from water on 2024-08-01.

12. **Prof. L Jayasinghe** awarded a Fellowship by Chinese Academy of Science from 2024-05-01 to 2025-01-31.

13. **Ms. J. Kalinga** received the First place as well as Peoples' Choice Award for Three Minute Thesis Competition, Sri Lankan Academy of Young Scientist 2024 on 2024-10-10.

14. **Prof. G.R.A. Kumara** received an International Award for Top 10% Scientist in Energy and Technology in Sri Lanka on 2024-01-01.

15. **Prof. G.R.A. Kumara** received an International Award for Top ranked Scientist in Energy Engineering in Sri Lanka on 2024-01-01.

16. **Prof. R Liyanage** received the Excellent in Research Award from National Institute of Fundamental Studies on 2024-03-26.

17. **Prof. D.N. Magana-Arachchi** received a NIFS Outstanding Scientist Award for the outstanding research contribution during the 2023 academic year under Associate Research Professor category on 2024-03-28.

18. **Prof. D.N. Magana-Arachchi,** and Dr. R.P. Wanigatunge received a National Competitive Award for SUSRED (Support Scheme for Supervision of Research Degrees) on 2024-04-04.

19. **Prof. J.M.N. Marikkar** awarded a Fellowship by INTI International University Malaysia from 2023-06-01 to 2025-12-31.

20. **Ms. H.M.H.D.K. Naranpanawa** received a National Competitive Award for "I am a Researcher" competition, University of Colombo on 2024-11-06.

21. **Dr. M. Premarathna** awarded a Fellowship by School of Food Science and Engineering, South China University of Technology from 2024-09-01 to 2024-02-28.

22. **Dr. M. Premarathna** received an International Competitive Award for the Best Scientist in Sri Lanka in field of Philosophy on 2024-12-09.

23. **Ms. T.M. Paranavithana** received the Research Excellence Award (First place) for the outstanding research contribution during the 2023 academic year under Research Assistant category, National Institute of Fundamental Studies on 2024-03-28.

24. **Prof. R.R. Ratnayake** received a National Competitive Award for SUSRED (Support Scheme for Supervision of Research Degrees) on 2024-04-04.

25. **Prof. R.R. Ratnayake** received the NIFS Excellent in Research Award for the outstanding research contribution during the 2023 academic year on 2024-03-28.

26. **Ms. B.V.N. Sewwandi** received a National Award for Gold Medal for research excellence, honoring highest international and national research publications, patents, and research awards within the stipulated time at the board of study in Physical sciences of the faculty of Graduate studies at the 50th Convocation of University of Sri Jayewardenepura on 2024-10-30.

27. **Prof. G. Seneviratne** received an International Competitive Award for World's Top 2% Scientists on 2024-09-17.

28. **Ms. M.S.S.P. Somarathna** received the 2nd Runner-up for the poster presentation in the session on "Food Quality, Safety & Product Development", Undergraduate Research Symposium 2023 (FAuRS), Faculty of Agriculture, University of Peradeniya on 2024-03-26.

29. **Ms. S.M.M.U. Sivirathna** received the Best Presenter Award, Rajarata University of Sri Lanka, on 2024-03-13.

30. **Prof. N.D. Subasinghe** awarded a Fellowship by National Academy of Science Sri Lanka on 2024-03-16.

31. **Prof. R. Weerasooriya** received an International Competitive Award for China-Sri Lanka Research Collaboration Development on 2024-03-25.

32. **Prof. R. Weerasooriya** received the NIFS Outstanding Scientist for the outstanding research contribution during the 2023 academic year on 2024-03-28.

33. **Prof. R. Weerasooriya** received an International Competitive Award for Overseas Talents Plan on 2023-12-02.

34. **Prof. R. Weerasooriya** received a NIFS Outstanding Scientist for Research Excellence Award for the outstanding research contribution during the 2023 academic year on 2024-03-28.

35. **Ms. M. Wickramasinghe** received the Research Excellence Award (Second place) for the outstanding research contribution during the 2023 academic year under Research Assistant category, National Institute of Fundamental Studies on 2024-03-28.

36. **Dr. H.W.M.A.C. Wijayasinghe** received a NIFS Outstanding Scientist Award for the outstanding research contribution during the 2023 academic year under Research Fellow and Senior Research Fellow category on 2024-03-28.

Recognition

1. **Prof. M.A.K.L. Dissanayake** Deputy Project Director of the Edu-Training project on Prototype manufacturing of thin film solar cells at Ministry of Technology and Innovation from 2017-01-01 to 2024-01-01.

2. **Dr. H.D. Jayasinghe** Chairperson of the biological science session at young scientists' association of NIFS on 2024-11-27.

3. **Dr. H.D. Jayasinghe** Provided expertise for identification of plant species that can be permitted for utilization by Wedda people to amend the Flora & fauna protection ordinance at Department of Wildlife Conservation, at the Gal Oya National Park from 2024-08-02 to 2024-08-04.

4. **Dr. H.D. Jayasinghe** Provided expertise at the consultative workshop on the 'Early Action Support Project for National Biodiversity Target Setting for 2024-2030' at Biodiversity Secretariat, Ministry of Environment on 2024-08-26.

5. **Prof. G.R.A. Kumara** Chief Guest for Prize giving Ceremony of Dudley Senanayake Central College, Tholangamuwa in 2024.

6. **Prof. R. Liyanage** received the A judge in the Three Minutes Thesis (3MT) Competition, 2024 from Young Scientists Association (YSA), National Institute of Fundamental Studies on 2024-07-09.

7. **Prof. D.N. Magana-Arachchi** Received the Member of the Jurys per the Appointment made by H. E. the President of Sri Lanka, to evaluate the Presidential Awards for Inventions-Year 2021 to 2022-National Event to Recognize Inventors, Sri Lanka Inventors commission (SLIC) on 2024-08-12.

8. **Prof. J.M.N. Marikkar** received the A judge in the Three Minutes Thesis (3MT) Competition, 2024 from Young Scientists Association (YSA), National Institute of Fundamental Studies on 2024-07-09.

9. **Dr. N. Piyasena** Received the Judge in the event, Meliora '24 - The All Island Inter School Innovation Competition and Exhibition, organized by the Senior Science Society of Mahamaya Girls' College, Kandy on 2024-11-18.

10. **Prof. R. Weerasooriya** Chairman, Groundwater Policy Formulation Ministry of Water Supply at Ministry of Water Supply from 2023-08-31 to 2024-01-03.

11. **Prof. D.S.A. Wijesundara** Co-Chair at National Invasive Species Specialist Group at Ministry of Environment from 2012-02-01 to 2024-01-31.

Evaluator

1. **Prof. G.R.A. Kumara** Evaluator for the NRC Progress Reports in 2024.

2. **Prof. G.R.A. Kumara** Evaluator for Judge- 3MT competition in 2024.

3. **Prof. G.R.A. Kumara** Evaluator for The Investigator-driven Research Grants in 2024.

4. **Prof. D.N. Magana-Arachchi** Evaluator for the Microbiology Laboratory (Technical Assessor) of Industrial Technology Institute in 2024.

5. **Prof. D.N. Magana-Arachchi** Evaluator for (a Judging Panel Member) Three-minute thesis - 3 MT 2024 NIFS-YSA in 2024.

6. **Prof. D.N. Magana-Arachchi** Evaluator for Pre-Assessment of the VRI Bacteriology Laboratory (Technical Assessor) of Veterinary Research Institute, Peradeniya in 2024.

7. **Prof. D.N. Magana-Arachchi** Evaluator for the Second Surveillance Assessment (Technical Assessor) of the Microbiology Laboratory of Bureau Veritas Consumer Products Services Lanka (Pvt) Ltd in 2024.

8. **Prof. J.M.N. Marikkar** Evaluator for a grant proposal submitted to Sri Lanka Council for Agricultural Research Policy in 2024.

9. **Prof. J.M.N. Marikkar** Evaluator for the abstracts submitted to the Young Scientists Conference on Multidisciplinary Research in 2024.

10. **Dr. N. Piyasena** Evaluator for Inter-institutional Multi-Disciplinary Research Grants in Lanka Council for Agricultural Research Policy (SLCARP) in 2024.

11. **Prof. R. Weerasooriya** Evaluator for Research Proposal, University Research Council in 2024.

12. **Prof. R. Weerasooriya** Evaluator for Research Proposals, National Research Council in 2024.

13. **Prof. R. Weerasooriya** Evaluator for Research Grants, National Science Foundation in 2024.

Editorial Committee:

1. **Dr. J.M.K.W. Kumari** Editor for Physical Sciences of the Young Scientists' Conference on Multidisciplinary Research (YSCMR-2024) in 2024.

2. **Prof. D.N. Magana-Arachchi** a Handling Editor for the Young Scientists' Conference on Multidisciplinary Research (YSCMR) 2024 Virtual Conference at Young Scientists Association (YSA) of the National Institute of Fundamental Studies on 2024-11-27.

3. **Prof. J.M.N. Marikkar** Editor for the Proceeding Book of the Young Scientists Conference on Multidisciplinary Research in 2024.

4. **Prof. R.R. Ratnayake** Handling Editor for the Young Scientists' Conference on Multidisciplinary Research (YSCMR) 2024 Virtual Conference from Young Scientists Association (YSA) of the National Institute of Fundamental Studies on 2024-11-27.

5. **Prof. R. Weerasooriya** Editor for Proceedings of the Mini Symposium on Water and Wastewater: Research and Innovations in 2024.

6. **Prof. R. Weerasooriya** Editor for Journal of Technology and Value Addition, Uva Wellassa University in 2024.

7. **Prof. R. Weerasooriya** Editor for International Journal of Environmental Issues, University of Peradeniya in 2024.

Reviewer

1. **Prof. S.P. Benjamin** Reviewer for Biodiversity Data Journal in 2024.

2. **Prof. S.P. Benjamin** Reviewer for Systematic Entomology in 2024.

3. **Prof. S.P. Benjamin** Reviewer for ZooKeys in 2024.

4. **Prof. S.P. Benjamin** Reviewer for Zoological Research: Diversity and Conservation in 2024.

5. **Prof. S.P. Benjamin** Reviewer for Zoosystematics and Evolution in 2024.

6. **Prof. M.A.K.L. Dissanayake** Reviewer for Journal of Power Sources in 2024.

7. **Prof. M.A.K.L. Dissanayake** Reviewer for Optical Materials in 2024.

8. **Prof. M.A.K.L. Dissanayake** Reviewer for Materials Science and Engineering: B in 2024.

9. **Prof. M.A.K.L. Dissanayake** Reviewer for Electrochimica Acta in 2024.

10. **Prof. G.R.A. Kumara** Reviewer for Handling Editor - Young Scientists conference on Multidisciplinary Research in 2024.

11. **Prof. G.R.A. Kumara** Reviewer for Radiation Physics and Chemistry in 2024.

12. **Prof. G.R.A. Kumara** Reviewer for Journal of Alloys and Compounds in 2018.

13. **Prof. G.R.A. Kumara** Reviewer for Journal of Energy Storage in 2024.

14. **Prof. G.R.A. Kumara** Reviewer for Electrochimica Acta in 2024.

15. **Dr. J.M.K.W. Kumari** Reviewer for Abstract of the ^{13}th Annual Science Research Sessions (ASRS 2024) organized by the Faculty of Applied Sciences in 2024, Rajarata University of Sri Lanka.

16. **Prof. R. Liyanage** Reviewer for Journal of Technology and Value Addition (JTVA) Volume 5 Issue 2 in 2024.

17. **Prof. R. Liyanage** Reviewer for Journal of Technology and Value Addition (JTVA) in 2024.

18. **Prof. D.N. Magana-Arachchi** Reviewer for Air Quality, Atmosphere & Health in 2024.

19. **Prof. D.N. Magana-Arachchi** Reviewer for the manuscript AIRQ-D-24-00224R2 for Air Quality, Atmosphere & Health in 2024.

20. **Prof. D.N. Magana-Arachchi** Reviewer for Peradeniya University International Research Symposium and Exposition (iPURSE-2024) in 2024.

21. **Prof. D.N. Magana-Arachchi** Reviewer for proposal titled "Development of Rapid Diagnosis and Sustainable Filtration System for Microcystin-LR (MC-LR) Cyanotoxins in Water" for University of Sri Jayewardenepura, Sri Lanka in 2024.

22. **Prof. D.N. Magana-Arachchi** Reviewer for the manuscript on "Airborne bacterial and fungal species in working areas of salmon processing plants", Science of the Total Environment in 2024.

23. **Prof. D.N. Magana-Arachchi** Reviewer for the manuscript on "Characterization of size-segregated bioaerosols under diverse microenvironments", An International Journal of Air Quality, Atmosphere & Health in 2024.

24. **Prof. J.M.N. Marikkar** Reviewer for an abstract evaluation for Insight International Research Conference in 2024.

25. **Prof. J.M.N. Marikkar** Reviewer for an article submitted to Ceylon Journal of Science in 2024.

26. **Prof. J.M.N. Marikkar** Reviewer for reviewing a manuscript submitted to Grasas Y Aceites in 2024.

27. **Prof. J.M.N. Marikkar** Reviewer for reviewing a manuscript submitted to Current Scientia in 2024.

28. **Prof. J.M.N. Marikkar** Reviewer for the third examination in biosystems technology held in November 2024 in 2024.

29. **Dr. N. Piyasena** Reviewer for abstract submitted to the Young Scientists' Conference on Multidisciplinary Research, National Institute of Fundamental Studies in 2024.

30. **Dr. N. Piyasena** Reviewer for the manuscript on "Improving tea quality by regulating phenylpropanoid and catechin biosynthesis through a synergistic combination of organic and chemical nitrogen fertilizers", Journal of the Science of Food and Agriculture in 2024.

31. **Dr. N. Piyasena** Reviewer for the manuscript on "Integration of NIRS and chemometric methods for tea quality control: principles, spectral preprocessing methods, machine learning algorithms, research progress, and future directions", Food Research International in 2024.

32. **Dr. N. Piyasena** Reviewer for the manuscript on "Intraspecies Diversity of the Bioactive Compounds of Wild and Cultivated Cinnamomum Species in Sri Lanka", BMC Agriculture, Springer Nature. in 2024.

33. **Dr. N. Piyasena** Reviewer for the manuscript on "Dynamic changes and interaction between different aroma types during low-temperature roasting of Bud Green Tea", Food Science and Nutrition in 2024.

34. **Dr. N. Piyasena** Reviewer for the manuscript on "Phytochemical Composition and Antioxidant Potential of Commercial Green Tea Leaves: A Comparative Analysis of Aqueous Hot Infusions", Food Research International in 2024.

35. **Prof. R. Weerasooriya** Reviewer for Journal of Chemical Environmental Engineering in 2024.

36. **Prof. R. Weerasooriya** Reviewer for Journal of Chemical Environmental Engineering in 2024.

37. **Ms. M. A. Wickramasinghe** Reviewer for Characterization of mango with physicochemical analysis and infrared spectroscopy in 2024.

38. **Ms. M.A. Wickramasinghe** Reviewer for Cogent Food and Agriculture in 2024.

Examiner

1. **Prof. M.A.K.L. Dissanayake -** Examiner for Ph.D. Thesis in 2024.

2. **Dr. J.M.K.W. Kumari -** Examiner for Physics course units at the Semester 1 Examination-Aug/Sep 2024 in 2024.

3. **Dr. J.M.K.W. Kumari -** Examiner for A/L Examination 2023 (2024) paper marking 2nd Round (Physics) in 2024.

4. **Dr. J.M.K.W. Kumari** -Examiner for A/L Examination 2023 (2024) paper marking 1st Round (Physics) in 2024.

5. **Dr. N. Piyasena** -Examiner for Upgrade of M.Phil. to Ph.D., Board of Study in Chemical Sciences, Postgraduate Institute of Science, University of Peradeniya in 2024.

Member of the Committees (Serving in Committees)

1. **Prof. S.P. Benjamin** -Member at Research Management Committee (RMC), Research Division, Ministry of Science and Technology

2. **Prof. M.A.K.L. Dissanayake** -Member of the committee to develop the National Hydrogen Policy for the Ministry of Energy, Sri Lanka at Ministry of Energy on 2024-12-02.

3. **Prof. M.A.K.L. Dissanayake** -Member of the Board of Management at "Solar Energy Research Centre (SERC)" at University of Peradeniya on 2024-08-12.

4. **Prof. M.A.K.L. Dissanayake -** Member of the Editorial Board from Ceylon Journal of Science on 2022-04-18.

5. **Prof. G.R.A. Kumara -**Chairman of the organizing committee of School Science Program at National Institute of Fundamental Studies on 2024-12-18.

6. **Prof. G.R.A. Kumara -** Chairman of the organizing committee of School Science Program at National Institute of Fundamental Studies on 2024-01-10.

7. **Prof. G.R.A. Kumara**, - Committee member from UKRI Ayrton Challenge Programme- Keele University, UK on 2024-02-14.

8. **Prof. R. Liyanage** -Member to the Board of Governors of the NIFS at National Institute of Fundamental Studies from 2024-05-30 to 2027-05-30.

9. **Prof. R. Liyanage -** Board Member at Faculty of Technolgy, University of Jaffna from 2024-07-29 to 2027-07-29.

10. **Prof. D.N. Magana - Arachchi,** Member of the Board of Study in Plant Sciences at Postgraduate Institute of Science, University of Peradeniya from 2023-04-01 to 2024-02-12.

11. **Prof. R.R. Ratnayake** - Member of Committee on Development of Ecosystem Services Indicators & Guidelines at Central Environmental Authority, Sri Lanka from 2020-02-01 to 2026-02-01.

12. **Prof. R.R. Ratnayake** - Member of the Board of Study in Biochemistry & Molecular Biology at Postgraduate Institute of Science, University of Peradeniya from 2020-01-02 to 2026-01-02.

13. **Prof. N.D. Subasinghe -** Member of consultation group at Revision of Hanthana Environmental Protection Area (HEPA) Gazette from 2023-01-01 to 2024-06-30.

14. **Prof. N.D. Subasinghe** - Member of Committee on Development of Ecosystem Services Indicators & Guidelines at Central Environmental Authority, Sri Lanka from 2020-02-01 to 2026-02-01.

15. **Prof. R. Weerasooriy** - Chairman at National Costing Model Commitee, Ministry of Water Supply from 2023-12-08 to 2024-01-31.

16. **Prof. R. Weerasooriya** - Chairman at Groundwater Policy Formulation Ministry of Water Supply at Ministry of Water Supply from 2023-08-31 to 2024-01-03.

17. **Prof. R. Weerasooriya -** Chairman at National Costing Model Committee, Ministry of Water Supply from 2023-12-08 to 2024-01-31.

18. **Prof. D.S.A. Wijesundara**, - Chairman at National Committee on Floriculture at Sri Lanka Council for Agricultural Research Policy (CARP) from 2001-01-15 to 2024-01-31.

19. **Prof. D.S.A. Wijesundara, -** Chairman at National Committee on Man and Biosphere Program of UNESCO from 2000-01-05 to 2024-01-31.

20. **Prof. D.S.A. Wijesundara,** - Member at Council of SLTC Research University from 2023-01-01 to 2024-01-31.

21. **Prof. D.S.A. Wijesundara**, - Member at Council of University of Peradeniya from 2020-01-01 to 2024-01-31.

22. **Prof. D.S.A. Wijesundara, -** Member at Expert Committee to develop a national Biodiversity Policy from 2023-01-10 to 2024-01-31.

23. **Prof. D.S.A. Wijesundara,** - Member at National Committee on Biodiversity and Environment at National Science Foundation (NSF) from 2014-01-10 to 2024-01-31.

24. **Prof. D.S.A. Wijesundara,** - Member at National Committee on Man and Biosphere at National Science Foundation (NSF) from 2014-01-10 to 2024-01-31.

25. **Prof. D.S.A. Wijesundara -** Member at National Expert Committee on Climate Change Adaptation at Ministry of Environment from 2007-01-10 to 2024-01-31.

26. **Prof. D.S.A. Wijesundara -** Member at National Expert Committee on Mangrove Conservation and sustainable use at Ministry of Environment from 2007-01-10 to 2024-01-31.

27. **Prof. D.S.A. Wijesundara -** Member at Third National Biodiversity Experts Committee at Ministry of Environment from 2007-01-10 to 2024-01-31.

TRAINING & PARTICIPATION

Training

1. Mr. A.E. Gunasekaran Trained at an International Programme on *Site Reliability Engineering: Measuring and Managing Reliability* on 2024-01-01 at Google Cloud (Coursera).

2. Mr. K.G.S.N. Samaraweera Trained at a Programme on *JavaScript Essentials 1* from 2024-01-01 to 2024-01-12 at CISCO.

3. Mr. K.G.S.N. Samaraweera Trained at a Programme on *Responsive Web Design* from 2024-01-01 to 2024-02-11 at FreeCodeCamp.

4. Mr. K.G.S.N. Samaraweera Trained at a Programme on *Fundamentals of Responsible Generative AI* from 2024-02-27 to 2024-03-26 at Microsoft.

5. Mr. K.G.S.N. Samaraweera Trained at a Programme on *Introduction to AI and Machine Learning on Google Cloud* from 2024-02-21 to 2024-03-07 at Google Cloud.

6. **Prof. J.M.N. Marikkar,** and Ms. C. Thilakarathna Trained at a National Workshop on *Awareness Program on Research into Rupees* on 2024-04-03 at Auditorium of National Productivity Secretariate.

7. **Prof. D.N. Magana-Arachchi** Trained at a National Workshop on *SLAB Digitalization* on 2024-06-04 at Hotel Janaki, Colombo 5.

8. Ms. S.H.U. Hansani Trained at an International Programme on *Inter-University Exchange Project, Human resource development program in field science research in Indo-pacific region* from 2024-07-07 to 2024-07-21 at Niigata University, Niigata, Japan.

9. **Prof. J.M.N. Marikkar,** and **Prof. L. Ruvini** Trained at a National Workshop on *Enhancing Science and Technology Institutional Performance Implementation of Research and Development Projects* on 2024-08-13 at Faculty of Medicine, University of Colombo.

10. Ms. M.P. Thilakarathna Trained at a Programme on *Geophysical Training: Rajarata University of Sri Lanka* from 2024-12-08 to 2024-12-13 at Wahawa.

Participation

1. **Prof. M.A.K.L. Dissanayake** Participated at an International Programme on *a progress monitoring workshop and discussions on collaborative research under a Swedish Research Council grant* from 2024-06-09 to 2024-06-19 at Chalmers and Gothenburg Universities, Sweden.

2. **Prof. M.A.K.L. Dissanayake, Prof. G.K.R. Senadeera,** Prof. T.M.W.J. Bandara, **Dr. J.M.K.W. Kumari,** and Dr. H.N.M. Sarangika Participated at an International Conference on *18th Asian Conference on Solid State Ionics Conference (at Chennai, India*. from 2024-02-19 to 2024-02-22 at Meenakshi College for Women, Kodambakkam, Chennai, India.

3. **Dr. J.M.K.W. Kumari** Participated at a National Programme on *Awareness session on "IP management and Commercialization",* on 2024-04-03 at the Auditorium of "National Productivity Secretariat, 10th Floor, Sethsiripaya 2nd Stage, Battaramulla.

4. Dr. I. Piyasinghe Participated at an Exhibition on *Fiesta Fantasia 2024* on 2024-11-22 at Girls High School, Kandy.

5. **Dr. H.D. Jayasinghe** Participated at a National Programme on *National Red List Assessment of Butterflies* on 2024-08-24 at Sobhadaham piyasa, Battaramulla.

6. **Prof. D.N. Magana-Arachchi** Participated at a National Programme on *National Science Day* on 2024-11-27 at Faculty of Medicine, University of Colombo, UCFM Tower, Mini Auditorium.

7. **Prof. R. Weerasooriya** Participated at a National Conference on *Proceedings of the Mini Symposium on Water and Wastewater: Research and Innovations* on 2024-12-31 at China Sri Lanka Joint Research and Demonstration Centre (JRDC).

8. **Prof. R. Weerasooriya** Participated at a National Conference on *Improving Air Quality in Lower-Middle Income Countries: Monitoring, Modeling, and Pollution Control* on 2024-07-04 at China Sri Lanka Joint Research and Demonstration Centre (JRDC).

9. **Prof. R. Weerasooriya** (2024). *Soil and Water Pollution*. Presentation, Dept of Environmental and Industrial Sciences, Faculty of Science, University of Peradeniya.

10. **Prof. R. Weerasooriya** (2024). *undergraduate lecture series Applied Molecular Modeling*. Presentation, Dept of Physical Sciences, Sabaragamuwa University.

11. **Prof. R. Weerasooriya** (2024). *Computational Chemistry*. Presentation, Departmet of Chemistry, Rajarata University.

12. **Prof. R. Weerasooriya** (2024). *Lecture series Environmental Soil chemistry / Organic Pollutants and Environment/ Water and Environments/ Techniques in Soil, Water, Plant and Fertilizer Analysis*. Presentation, Post Graduate of Agriculture University of Peradeniya.

DISSEMINATION OF SCIENCE

Symposia

1. Internal Symposium : *"Annual Research Review 2023"* was organized by the NIFS Scientists, Science Education & Dissemination Unit for the Scientific Community at Professor Cyril Ponnamperuma Auditorium on 2024-03-28, with the participation of 250 delegates. Resource Persons: Chief Guest Prof. Janaka Ekanayake, Director, University Research Council; Chair Professor, Department of Electrical and Electronic Engineering, University of Peradeniya; Guest of Honor Prof. Meththika Vithanage, Ecosphere Resilience Research Center, University of Sri Jayewardenepura; Keynote Speaker Prof. Ajith De Alwis, Senior Professor, Department of Chemical and Process Engineering, Faculty of Engineering, University of Moratuwa.

2. National Conference: The '*Young Scientists' Conference on Multidisciplinary Research (YSCMR 2024) "* was organized by the Young Scientists Association (YSA) for the Scientific Community at the NIFS Premises on 2024-11-27, with 120 participants. Resource Persons: Prof. I.M. Dharmadasa, Professor Emeritus in Engineering Science at Sheffield Hallam University, UK.

Workshops

1. *"Designing & conducting research on environmental science"* was organized by the NIFS and Central Environmental Authority for the School Community at the Popham's arboretum on 2024-11-12 with 79 participants.
   Resource Persons: **Dr. H.D. Jayasinghe**.

2. *"Field training workshop on biodiversity"* was organized by the plant taxonomy & Conservation project of NIFS for the Scientific Community at the At Popham's arboretum on 2024-10-19 with 26 participants.
   Resource Persons: **Dr. H.D. Jayasinghe**.

3. *"School Science Programme 2024"* was organized by the Science Education & Dissemination Unit for the School Community at the NIFS Premises from 2024-12-18 to 2024-12-20 with 105 participants.
   Resource Persons: Prof. A. Sumathipala, **Prof. R. Weerasooriya, Prof. M.A.K.L. Dissanayake, Prof. G.R.A. Kumara, Prof. S.P. Benjamin, Prof. N.D. Subasinghe, Prof. D.N. Magana-Arachchi, Prof. J.M.N. Marikkar,** Dr. Himesh Jayasinghe, and **Prof. J. Bandara**.

4. *"Special Program for Kadugannawa National School"* was organized by the Science Education and Dissemination Unit for the School Community at the Kadugannawa National School, Kadugannawa on 2024-11-19, with 136 participants.
   Resource Persons: **Prof. D.N. Magana-Arachchi, Prof. W.P.J. Dittus, Prof. R. Rathnayake,** and **Prof. J. Bandara**.

5. *"ඵලදායීතා පුහුණු වැඩසටහන"* was organized by the Administration Division for the NIFS Staff at the Small Auditorium on 2024-10-27, with 25 participants.
   Resource Persons: Mr. Amila Prabhath Athukorala, National Productivity Secretariat, Kandy.

6. *'Basics of Scientific Methodology' for St. Thomas' College, Matale* was organized by the Science Education and Dissemination Unit for the School Community at the Prof. Cyril Ponnamperuma Auditorium on 2024-09-18, with 51 participants.
   Resource Persons: **Prof. R. Weerasooriya, Prof. G.R.A. Kumara,** and **Dr. Himesh Jayasinghe**.

7. *"DAAD Scholarship Presentation"* was organized by the Prof. Suresh Benjamin, Science Education & Dissemination Unit for the Scientific Community at the Prof. Cyril Ponnamperuma Auditorium on 2024-07-23, with 65 participants.
   Resource Persons: Delegation of German Industry and Commerce in Sri Lanka.

8. *"World Environmental Day 2024- Awareness Program for School Children of Northern Province at the NIFS Popham Arboretum in Dambulla"* was organized by the Science Education & Dissemination Unit, **Prof. D.S.A. Wijesundara, Dr. Himesh** Jayasinghe, Environmental Authority for the School Community at the NIFS Popham Arboretum in Dambulla on 2024-06-10 with 80 participants.
   Resource Persons: **Prof. D.S.A. Wijesundara,** Dr. Ajith Gunawardena, and Dr. Himesh Jayasinghe.

9. *"School Science Programme 2023"* was organized by the Science Education & Dissemination Unit for the School Community at the NIFS Premises from 2024-01-10 to 2024-01-12 with 100 participants.
   Resource Persons: Prof. Athula Sumathipala, **Prof. M.A.K.L. Dissanayake, Prof. G.R.A. Kumara, Prof. D.S.A. Wijesundara, Prof. D.N. Magana-Arachchi, Prof. J.M.N. Marikkar, Prof. R. Weerasooriya, Prof. S.P. Benjamin, Prof. W.P.J. Dittus,** Prof. J.M.S. Bandara, and **Prof. N.D. Subasinghe**.

Lab Visits

1. Forty A/L Science stream students from Vishaka Vidiyalaya, Colombo, visited the NIFS on 2024-09-12 to gain Laboratory experience from Condensed Matter Physics and Solid-State Chemistry Research Lab, Material Processing & Device Fabrication Research Lab, Earth Resources & Renewable Energy Research Lab, Natural Products Research Lab, Biofertilizer Research Lab, Molecular Microbiology & Human Diseases Research Lab, Nutritional Biochemistry Research Lab, Materials development & pollution remediation Research Lab, and the Water Research Lab.
   Resource Persons: **Prof. M.A.K.L. Dissanayake, Prof. G.R.A. Kumara, Prof. N.D. Subasinghe, Dr. N. Piyasena, Prof. G. Seneviratne, Prof. D.N. Magana-Arachchi, Prof. R. Liyanage, Dr. L. Jayarathna,** and **Prof. R. Weerasooriya**.

2. Fifty-six A/L Science stream students form St. Joseph's Girls' School, Nugegoda, visited the NIFS on 2024-08-27 to gain lab experience in the Condensed Matter Physics and Solid-State Chemistry Research Lab, Nanotechnology and Physics of Materials Research Lab, Earth Resources & Renewable Energy Research Lab, Natural Products Research Lab, Biofertilizer Research Lab, Molecular Microbiology & Human Diseases Research Lab, Materials development & pollution remediation Research Lab, and Microbiology & Soil Ecosystems Research Lab.
   Resource Persons: **Prof. M.A.K.L. Dissanayake, Dr. H.W.M.A.C. Wijayasinghe, Prof. N.D. Subasinghe, Dr. N. Piyasena, Dr. M. Premarathna, Prof. D.N. Magana-Arachchi, Prof. R. Rathnayake,** and Dr. I.P.L. Jayarathna.

3. Twenty Microbiology students of Faculty of Science, University of Peradeniya, visited the NIFS on 2024-07-25 to visit the Microbial Biotechnology laboratories.
   Resource Persons: **Prof. G. Seneviratne,** and **Dr. M. Premarathna,**

4. Twenty Botany and Microbiology students of Faculty of Science, University of Peradeniya, visited the NIFS on 2024-07-22 to visit the Microbial Biotechnology laboratories.
   Resource Persons: **Prof. G. Seneviratne,** and **Dr. M. Premarathna,**

5. Sixty Students from Department of Biosystem Technology, Faculty of Technology, Uva Wellassa University of Sri Lanka, visited the NIFS on 2024-07-29 to visit the Microbial Biotechnology laboratories.
   Resource Persons: **Prof. G. Seneviratne,** and **Dr. M**. **Premarathna,**

Special Lectures

1. *"Decoding Research: Practical Takeaways for Non-Experts"* was organized by the Young Scientists Association (YSA) for the Scientific Community at the Online on 2024-10-24 with 55 participants.
   Resource Persons: Ms. Jayani Kalinga, and Ms. Kulangana Theivendrarajah.

2. *"Postgraduate Opportunities to Elevate Your Scientific Impact on the Global Stage"* was organized by the Young Scientists Association (YSA) for the Scientific Community via Online on 2024-11-21 with 65 participants.
   Resource Persons: **Prof. M.A.K.L. Dissanayake**.

3. *"Special Lecture on Psychology"* was organized by the Secretary NIFS, Science Education and Dissemination Unit for the NIFS Staff at the Small Auditorium on 2024-11-05 with 80 participants.
   Resource Persons: Prof. A. Sumathipala.

4. *"An imperative adaptation in primate cell repair after protein damage"* was organized by the Prof. Lakshman Dissanayake, Science Education and Dissemination Unit for the Scientific Community at the Small Auditorium on 2024-11-20 with 36 participants.
   Resource Persons: Dr. Nadinath Nillegoda, Keio University in Japan.

5. *"Why Do Mobile Phones Explode? The Hidden Dangers of Lithium-Ion Batteries"* was organized by the Young Scientists Association (YSA), **Prof. M.A.K.L. Dissanayake** for the Scientific Community at the Prof. Cyril Ponnamperuma Auditorium on 2024-08-20 with 51 participants.
   Resource Persons: Prof. Bengt-Erik Mellander, Professor of Physics, Chalmers University of Technology, Gothenburg, Sweden.

6. *"Scientific Writing Skills for Graduate Students"* was organized by the Young Scientists Association (YSA) for the Scientific Community at the Online on 2024-08-08 with 60 participants.
   Resource Persons: **Prof. Nazrim Marikkar.**

7. *"Why and How to Practice Science"* was organized by the Science Education & Dissemination Unit for the Scientific Community at the Prof. Cyril Ponnamperuma Auditorium on 2024-08-09 with 38 participants.
   Resource Persons: Prof. Veranja Karunarathne.

8. *"Did We Really Go to the Moon?"* was organized by the Science Education & Dissemination Unit for the Scientific Community at the Prof. Cyril Ponnamperuma Auditorium on 2024-08-07 with 22 participants.
   Resource Persons: **Prof. Deepal Subasinghe.**

9. *"Aspects of tree planting with reference to the program at Hantana watta"* was organized by the Science Education & Dissemination Unit for the Scientific Community at the professor Cyril Ponnamperuma Auditorium on 2024-06-12 with 50 participants.
   Resource Persons: **Dr. Himesh Jayasinghe.**

10. *"Rapid production of agarwood resin with a medicinally accepted amount of Agarotetrol by Fusarium solani (HC01) in Aquilaria sinensis"* was organized by the Science Education & Dissemination Unit for the Scientific Community at the professor Cyril Ponnamperuma Auditorium on 2024-02-21 with 27 participants.
    Resource Persons: Prof. Saowaluck Tibpromma Qujing, Normal University, Qujing, Yunnan, P.R. China.

Other Events

1. *"Flora and fauna of Sri Lankan dry zone"* was organized by the plant taxonomy & Conservation project of NIFS for the Scientific Community at the At Popham's arboretum on 2024-12-21 with 30 participants.
    Resource Persons: Dr. H. Jayasinghe.

2. *"ගිනි නිවීම් සංරක්ෂණ පුහුණු වැඩසටහන"* was organized by the Science Education & Dissemination Unit for the NIFS Staff at the NIFS Premises from 2024-06-27 to 2024-06-24 with 150 participants.
    Resource Persons: Mr. Chaminda Nuragoda, Fire Prevention Officer.

3. "*වන සංරක්ෂණ දෙපාර්තමේන්තුව හා පේරාදෙණිය උද්භිද උද්‍යානයේ සහයෝගිතාවයෙන් ජාතික පරිසර දිනයට සමගාමීව පවත්වන රුක් රෝපණ වැඩසටහන"* was organized by the Science Education & Dissemination Unit for the NIFS Staff at the NIFS Premises on 2024-06-05 with 150 participants.
    Resource Persons: Dr. Himesh Jayasinghe, and **Prof. D.S.A. Wijesundara**.

Dissemination Science through Printed Media

1. **Weerasooriya, R.,** Kuruppu, K.M.N.K.B., Chandrasekara, E.G.V.P., and Silva, K.B.A. (2024-10-13), Miracle Water the Lifeblood of Earth. *Celebrating World Science Day 2024* p.1-6.

2. **Dissanayake, M.A.K.L.** (2024-02-09), First SL-Made Prototype Solar Panels Exhibited at Kelaniya University. *Ceylon Today*.

Invited Speeches

1. **Prof. Benjamin, S.P.** (2024). *Serendipity in Taxonomy: Discovering Spiders on Tropical Mountain*. Keynote, Kolkata, India.

2. **Prof. Dissanayake, M.A.K.L.** (2024). *Dye sensitized solar cells-Iodide ion conductivity*. Special Lecture, Department of Physics, Savitribai Phule Pune University, Pune.

3. **Prof. Dissanayake, M.A.K.L.** (2024). *Magnesium Ion-Conducting Polymer Gel Electrolytes for Magnesium Batteries*. Keynote, Meenakshi College for Women, Kodambakkam, Chennai, India.

4. **Prof. Dittus, W.P.J.** (2024). *Primate Biology 2023*. Presentation, National Institute of Fundamental Studies, Kandy.

5. **Prof. Dissanayake, M.A.K.L.** (2024). *Sri Lanka, a Renewable Energy Island*. Keynote, University of Peradeniya.

6. **Prof. Dittus, W.P.J.** (2024). *Recreating King Parakrama's Garden: a novel and unique tourist attraction*. Presentation, Polonnaruwa.

7. **Prof. Dittus, W.P.J.** (2024). *Prolonged lactation, maternal depletion and infant mortality in wild toque macaques*. Invited Speech, Front Royal VA, and Washington DC, USA.

8. **Prof. Dittus, W.P.J.** (2024). *Biological Science as a career: preparation, opportunities and rewards*. Invited Speech, Kadugannawa National School, Kadugannawa.

9. **Prof. Jayasinghe, L.** (2024). *Endophytic fungi*. Special Lecture, Kerala Academy of Sciences (KAS), Kerala, India.

10. **Dr. Jayasinghe, H.D.** (2024). *Tips and Techniques in Identification of Butterflies*. Special Lecture, BLT, Department of Zoology and Environment.

11. **Dr. Jayasinghe, H.D.** (2024). *Bio diversity of Sri Lanka*. Special Lecture, National Institute of Fundamental Studies, Kandy.

12. **Dr. Jayasinghe, H.D.** (2024). *Plants of Sri Lanka – with a special emphasize on Knuckles Mountain range*. Special Lecture, at Training center of Forest Department at Inamaluwa, jointly organized by Forest Department.

13. **Dr. Jayasinghe, H.D.** (2024). *Habitat restoration and threatened plant species of Sri Lanka*. Invited Speech, 'Meth Bo Sevana' vipassana meditation center.

14. **Dr. Jayasinghe, H.D.** (2024). *Teacher training programme of Parisara niyamu societies, Dry zone flora & fauna*. Special Lecture, Popham's arboretum.

15. **Dr. Jayasinghe, H.D.** (2024). *Identification of plant species that can be permitted for utilization by Wedda people to amend the Flora & fauna protection ordinance*. Special Lecture, Head office, Department of Wildlife Conservation.

16. **Dr. Jayasinghe, H.D.** (2024). *Research training workshop, Aspects of conducting research on biological sciences*. Special Lecture, National Institute Fundamental Studies.

17. **Dr. Jayasinghe, H.D.** (2024). *Dumbara Environmental Awareness Workshop – 2024*. Presentation, Knuckles conservation forest.

18. **Dr. Jayasinghe, H.D.** (2024). *Tips and Techniques in Identification of Butterflies*. Special Lecture, Department of Zoology and Environment Sciences, Faculty of Science, University of Colombo.

19. **Dr. Jayasinghe, H.D.** (2024). *Tropical plant families identification*. Presentation, University of Sri Jayewardenepura.

20. **Dr. Jayasinghe, H.D.** (2024). *Aspects of tree planting with respect to the program at Hantana watta*. Special Lecture, At National Institute of Fundamental Studies, Kandy.

21. **Dr. Jayasinghe, H.D.** (2024). *Identification of angiosperms, Field workshop on identification of angiosperms for Undergraduate students of Department of Plant Sciences, University of Colombo. Conducted on 27-28 July at Popham's Arboratum and nearby forests organized by NIFS*. Special Lecture, Popham's Arboratum.

22. **Dr. Jayasinghe, H.D.** (2024). *Habitat restoration, Field session on habitat restoration for Students & teachers of Alethea school, Dehiwala. Conducted at Endana biodiversity corridor; organized by Dilmah Conservation*. Special Lecture, Endana biodiversity corridor.

23. **Dr. Jayasinghe, H.D.** (2024). *Urban wetland habitats, Field session on urban wetland habitats for the participants of the Wetland Link International Asia-Oceania Conference. Conducted at Beddagana wetland park; jointly organized by Dilmah Conservation and Urban Development Authority*. Special Lecture, Beddagana wetland park.

24. **Dr. Jayasinghe H.D.** (2024). *Exploring the biodiversity of dry zone habitats, Field session on "exploring the biodiversity of dry zone habitats for Presidential medal winners of 'Parisara Niyamu' students of the Northern province. Conducted at Popham's Arboratum; jointly organized by Central Environment Authority and NIFS*. Special Lecture, Popham's Arboratum.

25. **Dr. Jayasinghe, H.D.** (2024). *Exploring home garden biodiversity*. Invited Speech, Online session.

26. **Dr. Jayasinghe, H.D.** (2024). *Interesting findings from flora survey at Walankanda*. Invited Speech, Dilmah center for a sustainable future.

27. **Dr. Jayasinghe, H.D.** (2024). *Red listing process, threatened plants & rediscoveries*. Invited Speech, Education center of Royal Botanic Gardens, Peradeniya.

28. **Prof. Kumara, G.R.A.** (2024). *"What is Research"*. Keynote, Dharmaraja college Kandy

29. **Prof. Magana-Arachchi, D.N.** (2024). *Exciting diverse fields in the science stream - BIOLOGY*. Invited Speech, Kadugannawa National School, Kadugannawa.

30. **Prof. Magana-Arachchi, D.N.** (2024). *Transboundary Haze Events*. Special Lecture, National Institute of Fundamental Studies, Kandy.

31. **Prof. Magana-Arachchi, D.N.** (2024). *Science behind controlling COVID -19 pandemic*. Special Lecture, National Institute of Fundamental Studies, Kandy.

32. **Prof. Marikkar, J.M.N.** (2024). *Awareness about food fraud*. Special Lecture, School Science Programme, National Institute of Fundamental Studies, Kandy.

33. **Prof. Marikkar, J.M.N.** (2024). *Delivered a talk on glucose homeostasis in the human body on the event of school science programme 2024*. Special Lecture, Auditorium of National Institute of Fundamental Studies, Kandy.

34. **Prof. Marikkar, J.M.N.** (2024). *Scientific writing skills for graduate students*. Special Lecture, Auditorium of National Institute of Fundamental Studies, Kandy.

35. **Dr. Premarathna, M.** (2024). *A sex hormone catalyzes biological nitrogen fixation*. Invited Speech, Asia-Pacific Biofilms 2024, Guangzhou, China.

36. **Dr. Premarathna, M.** (2024). *Chaired the session on Biofilms in Central Asia at the Asia Pacific Biofilms 2024*. Presentation, Guangzhou, China.

37. **Dr. Premarathna, M.** (2024). *Biofilms: their role and applications, Two academic staff members and 30 students of the Department of Botany, Faculty of Science, University of Peradeniya, 07/22/2024*. Special Lecture, National Institute of Fundamental Studies, Kandy.

38. **Dr. Premarathna, M.** (2024). *Biofilms: their role and applications, Two academic staff members and 20 students of the Department of Botany, Faculty of Science, University of Peradeniya, 07/25/2024*. Special Lecture, National Institute of Fundamental Studies, Kandy.

39. **Dr. Premarathna, M.** (2024). *Biofilms: their role and applications, Four academic staff members and 60 students of the students of Department of Biosystem Technology, Faculty of Technology, Uva Wellassa University of Sri Lanka, 07/29/2024*. Special Lecture, National Institute of Fundamental Studies, Kandy.

40. **Prof. Ratnayake, R.R**. (2024). *Microbes are our friends or not?*. Invited Speech, Kadugannawa Maha Vidyalaya, Kadugannawa, Kandy.

41. **Prof. Seneviratne, G.** (2024). *Soil biofilm induction to increase crop production and bioremediation: a novel approach*. Keynote, Asia-Pacific Biofilms 2024, Guangzhou, China.

42. **Prof. Seneviratne, G.** (2024). *Biofilm biofertilizer; Concept and applications, Four academic staff members and 60 students of the students of Department of Biosystem Technology, Faculty of Technology, Uva Wellassa University of Sri Lanka, 07/29/2024*. Special Lecture, National Institute of Fundamental Studies, Kandy.

43. **Prof. Subasinghe, N.D.** (2024). *Did We Really Go to the Moon?*. Special Lecture, National Institute of Fundamental Studies, Kandy.

44. **Prof. Wijesundara, D.S.A.** (2024). *Climate Change as a Driver of Ecological Shifts in Sri Lanka's Vegetation*. Invited Speech, Institute of Biochemistry, Molecular Biology and Biotechnology, University of Colombo.

45. Amarasinghe, V., Gunathunga, S., and Senevirathne, H. (2024). *Laboratory Safety*. Presentation, National Institute of Fundamental Studies, Kandy.

46. Gunawardhana, C., and Epa, T.A. (2024). *Microbial Fuel Cells (MFC)*. Presentation, National Institute of Fundamental Studies, Kandy.

47. Kavinda, J.M.L. (2024). *The first 100 years on Mars*. Presentation, National Institute of Fundamental Studies, Kandy.

48. Sapugoda, S., Kahandawala, K.A.D.E., and Gnanarathne, S.S. (2024). *Biofilm Microbiology and Biotechnology based on Scientometry*. Presentation, National Institute of Fundamental Studies, Kandy.

49. Pathirana, R. (2024). *Probiotics and Postbiotics as Functional foods for Immune response*. Presentation, National Institute of Fundamental Studies, Kandy.

50. Jayasinghe, S.D.P.N., and Jayasekara, A.J.S.H. (2024). *Scientific Writing for Beginners*. Presentation, National Institute of Fundamental Studies.

51. Thilakarathna, M.P. (2024). *Exploring Hidden Energy: The Role of Ground Magnetic Surveys in the Wahawa Geothermal Frontier*. Presentation, National Institute of Fundamental Studies, Kandy.

52. **Prof. Seneviratne, G.** (2024). *Biofilm biofertilizer; Concept and applications, Two academic staff members and 20 students of the Department of Botany, Faculty of Science, University of Peradeniya, 07/25/2024*. Special Lecture, National Institute of Fundamental Studies, Kandy.

53. **Prof. Seneviratne, G.** (2024). *Biofilm biofertilizer; Concept and applications, Two academic staff members and 30 students of the Department of Botany, Faculty of Science, University of Peradeniya, 07/22/2024*. Special Lecture, National Institute of Fundamental Studies, Kandy.

Presentations

1. **Dissanayake, M.A.K.L.** (2024). *Sri Lanka, a renewable island?* Keynote, University of Peradeniya.

2. **Dissanayake, M.A.K.L.** (2024). *Magnesium Ion-Conducting Polymer Gel Electrolytes for Magnesium Batteries*. Keynote, Chennai, India.

3. **Dr. Jayasinghe, H.D.** (2024). *Field training workshop on 'plant identification*. Presentation, At Hantana mountain range.

4. **Kumara, G.R.A.** (2024). *What is Research?* Special Lecture, NIFS.

5. **Weerasooriya, R.** (2024). *Soil and Water Pollution*. Presentation, Dept of Environmental and Industrial Sciences, Faculty of Science, University of Peradeniya.

6. **Weerasooriya, R.** (2024). *undergraduate lecture series Applied Molecular Modeling*. Presentation, Dept of Physical Sciences, Sabaragamuwa University.

7. **Weerasooriya, R.** (2024). *Computational Chemistry*. Presentation, Departmet of Chemistry, Rajarata University.

8. **Weerasooriya, R.** (2024). *Lecture series Environmental Soil chemistry / Organic Pollutants and Environment/ Water and Environments/ Techniques in Soil, Water, Plant and Fertilizer Analysis*, Presentation, Post Graduate of Agriculture University of Peradeniya.

Young Scientists Association (YSA)

Committee:

- **Adviser to the YSA – Dr. I.P.L. Jayarathne**
- *Co-chairs - Mrs. Sachini Jayasekara and Mr. Bhanuka Gunarathne*
- *Co-secretaries -Ms. Uthpala Premarathna and Mrs. Kumuthu Jayakody*
- *Co-treasurers - Ms. Sandunika Pareigale and Ms. Roshini Witharana*
- *Committee members – Mrs. Thakshila Herath, Mr. Ravindu Pathirana, Mrs. Prashanshani Jayasinghe, Ms. Thiloshi Agalawela, Ms. Ishara Weerasinghe, Ms. Uthpala Hannadige*

About YSA:

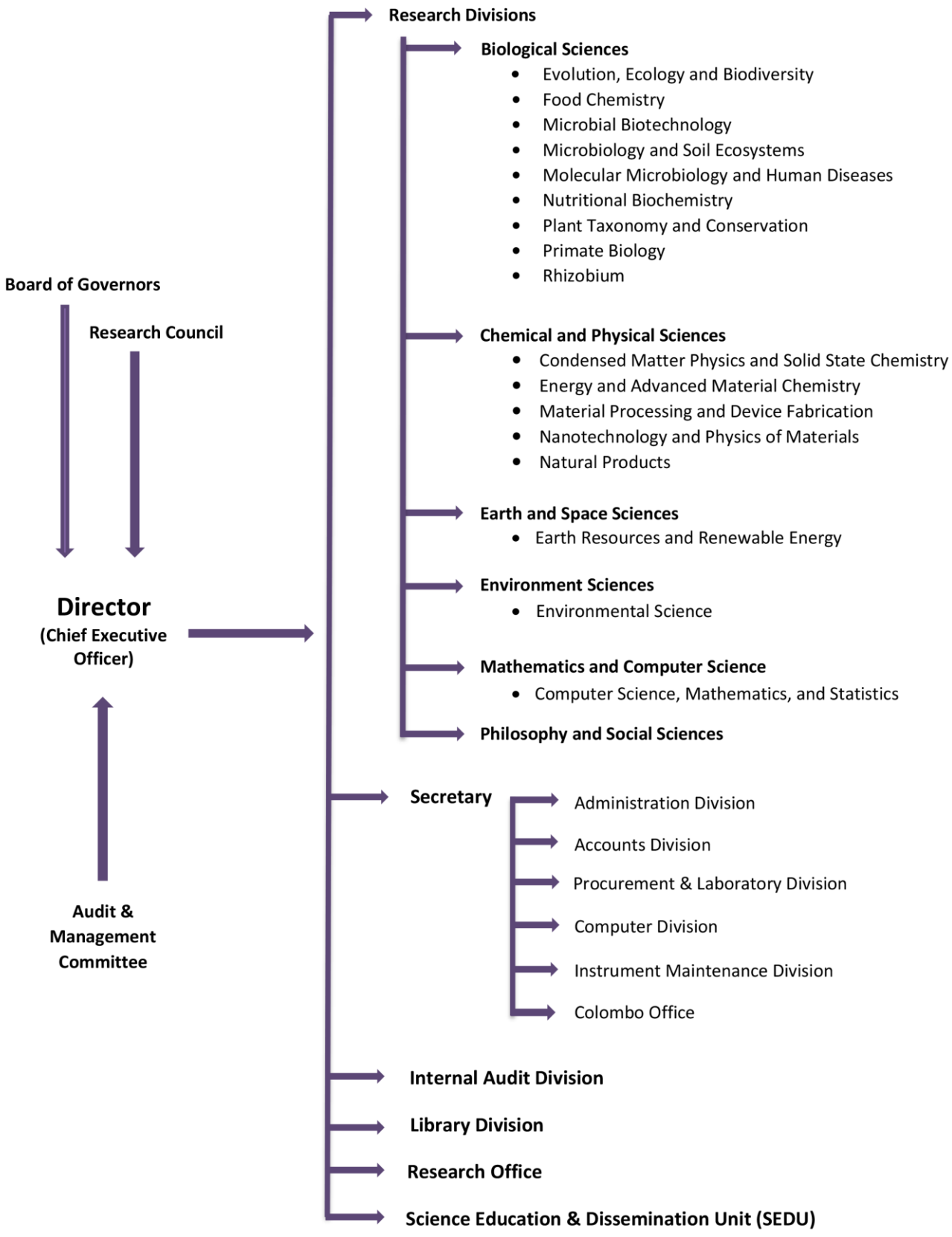
The Young Scientist Association (YSA) extends its ethos globally, offering resources, collaborative opportunities, and professional development to young scientist worldwide. through workshops, mentorship programs, and a supportive community, YSA fosters collaboration, resilience, and growth. advocating for fundamental science and promoting scientific literacy, YSA inspires the next generation and enhances global recognition for its members. By embracing values of passion, learning and inclusivity, YSA empowers young scientist to excel, contribute meaningfully to scientific advancement, and make a positive impact on society.

Activities:

- Two School Science Programs supported by YSA committee members.
- Annual Research Review supported by YSA members.
- *Poson Dansala* supported by YSA members.
- *Ruk Ropoana* Program supported by YSA members.
- Pre webinar series organized for 3MT competition.
- Successful 3- Minute Thesis Competition (3MT) led by co-chairs Ms. Uthpala and Mrs. Kumuthu.
- A special speech on "Why do mobile phones explode? The hidden danger of lithium iron batteries" by Professor Bengt-Erik Mellander.
- Fundraising Campaign (NIFS T-shirt campaign).
- Pre- Conference webinar series organized for Young Scientist's Conference on Multidisciplinary Research (YSCMR – 2024).
- Successfully completed "6th Young Scientist's Conference on Multidisciplinary Research 2024" (YSCMR – 2024) with 166 attendees led by Mr. Aravinda and Mrs. Thakshila.

SECTION 3-ORGANIZATION

ORGANIZATIONAL CHART



BOARD OF GOVERNORS

A twelve-member Board of Governors administers NIFS with Prof. Athula Sumathipala as the Chairman. The Board administers the institute and makes rules for the procedures in the conduct of its affairs.

Prof. Athula Sumathipala
Chairman
Appointed by H.E., the President

Dr. Thushara Vajira Perera
Science & amp; Technology Advisor to H.E. the President
Ex-officio Member

Senior Professor S. Amaratunge
Chairman
University Grants Commission
Ex-officio Member

Prof. Saluka R. Kodithuwakku
The Director/NIFS
(Up to 31.07.2024)
Ex-officio Member

Prof. Siril Wijesundara
The Acting Director/NIFS
(From 01.08.2024)
Ex-officio Member

Dr. W. Sardha Hemapriya
Obstetrician & Gynecologist
Appointed by H.E., the President

Prof. S.B.S. Abayakoon
University of Peradeniya
Appointed by H.E., the President

Dr. Yamuna Niranjalie Rajapakse
Lanka Hospital, Colombo
Appointed by H.E., the President

Prof. M.A.K.L. Dissanayake
Research Professor/NIFS
Appointed by the Minister

Eng. Nihal Rupasinghe
Appointed by the Minister

Prof. R. Liyanage
Research Professor/NIFS
Elected from the Research Council

Ms. B.W.G.C.S. Bogahawatta
Additional Director General
Ministry of Finance
Treasury Representative

Ms. M.P.W. Shiromani
Secretary to the Board/NIFS

RESEARCH COUNCIL

The Research Council, whose membership comprises university academics and researchers of the NIFS, served as an advisory body. The Research Council has control over the general direction of research and forwards its recommendations to the Board of Governors.

Chairman

- Prof. D. S. A. Wijesundara *(From 01.08.2024)*
- Prof. Saluka R. Kodithuwakku, Director/NIFS *(Up to 31.07.2024)*

Members

Appointed by H.E the President

- Prof. W.C.S.J. Wickramasinghe, Department of Parasitology, Faculty of Medicine, University of Peradeniya
- Prof. W.A.J.M. De Costa, Department of Crop Science, Faculty of Agriculture, University of Peradeniya

Ex-Officio:

Senior Research Professors, Research Professors, Associate Research Professors, and Senior Research Fellows of the National Institute of Fundamental Studies

- Prof. J. Bandara, Senior Research Professor
- Prof. U.L.B Jayasinghe, Senior Research Professor
- Prof. G. Seneviratne, Senior Research Professor
- Prof. M.A.K.L. Dissanayake, Research Professor (on contract)
- Prof. S.P. Benjamin, Research Professor
- Prof. G.R.A. Kumara, Research Professor (on contract)
- Prof. R. Weerasooriya, Research Professor (on contract)
- Prof. D.N. Magana-Arachchi, Associate Research Professor
- Prof. R.R. Ratnayake, Associate Research Professor
- Prof. N.D. Subasinghe, Associate Research Professor
- Prof. N. Marikkar, Associate Research Professor (on contract)
- Prof. R. Liyanage, Senior Research Fellow
- Dr. H.W.M.A.C. Wijayasinghe, Senior Research Fellow
- Dr. I.P.L. Jayarathne, Research Fellow
- Dr. M. Premaratne, Research Fellow
- Dr. K.G. Nelum P. Piyasena, Research Fellow

Nominated by the University Grant Commission

- Prof. P. Ravirajan, Department of Physics, Faculty of Science, University of Jaffna
- Prof. Chandana P. Udawatte, Vice Chairman, University Grant Commission
- Prof. M. Vithanage, Office of the Dean, Faculty of Applied Sciences, University of Sri Jayewardenepura
- Prof. R.G.S.C. Rajapakse, Dean, Faculty of Science, University of Peradeniya
- Prof. H.M.T.G.A. Pitawala, Director/PGIS

STAFF LIST - 2024

Director : Prof. D. S. A. Wijesundara - *(From 01.08.2024)*
Prof. P. R. G. Seneviratne - *(Acting Director 06.10.2024-28.12.2024)*
Prof. Saluka R. Kodithuwakku - *(Up to 31.07.2024)*
Secretary : Ms. M.P.W. Shiromani - (*From 01.11.2023 to-date)*

Research Staff

Senior Research Professors

Prof. Bandara J. M. S.
Prof. Jayasinghe U. L. B.
Prof. Seneviratne P. R. G.

Research Professors

Prof. Benjamin S. P.
Prof. Dissanayake M. A. K. L.
Prof. Kumara G. R. A.
Prof. Weerasooriya R.

Associate Research Professors

Prof. Magana Arachchi D. N.
Prof. Marikkar N.
Prof. Rathnayake R. R.
Prof. Subasinghe N. D.
Prof. Liyanage N. L. B. R.

Senior Research Fellows

Dr. Wijayasinghe H. W. M. A. C.

Research Fellows

Dr. Jayarathne I. P. L.
Dr. Jayasinghe H.D.
Dr. Piyasena K.G.N.P.
Dr. Premaratna U.M.B.
Dr. Kumari J.M.K.W.

Visiting Research Professors (Honorary)

Prof. Adikaram N.K. B.
Prof. Dittus W.P.J.
Prof. Kulasooriya S.A.
Prof. Nanayakkara A.
Prof. Oi-Ming Lai
Prof. Senadeera G.K.R.
Prof. Vithanage M.

Honorary Visiting Research Fellows

Dr. R. D. Nawarathna
Dr. L. S. Nawarathna
Dr. S. Ranasinghe

Visiting Scientist (Honorary)

Dr. Edirisinghe V.

Adjunct Professors (Honorary)

Lifetime Research Professors

Prof. Wickramasinghe C.
Prof. Tennakone K.

Adjunct Professors (Honorary)

Other Adjunct Research Professors

Prof. Chandrajith R.
Prof. Choudhary I.
Prof. Chen X.
Prof. Dallavalle S.
Prof. Dharmadasa I. M.
Prof. Fujimoto Y.
Prof. Hirotsu N.
Prof. Ismail N. H.
Prof. Junyan L.
Prof. Nammi S.
Prof. Karunaratne S.
Prof. Karunatane S.
Prof. Nikolai Kuhnert N.
Prof. Wijekoon P.
Prof. Wei Y.
Prof. Xu Z.
Prof. Yoshimura M.

Research Assistants

Computer Science, Mathematics & Statistics Research Programme

Mr. Gunasekaran A.E.	NIFS Research Assistant Gr. II
Mr. Samaraweera K.G.S.N.	NIFS Research Assistant Gr. II

Condensed Matter Physics & Solid-State Chemistry Research Programme

Ms. Sewwandi G.G.S.	NIFS Research Assistant Gr. II
Ms. Sandunika P.U.	NIFS Research Assistant Gr. II

Earth Resources & Renewable Energy Research Programme

Ms. Abeysinghe A.M.A.M	NIFS Research Assistant Gr. II
Ms. Thilakarathna M.P.	NIFS Research Assistant Gr. II
Ms. Shyamamala M.G.R.	NIFS Research Assistant Gr. II

Energy & Advanced Material Chemistry Research Programme

Mr. Rajakaruna R.P.P.D.	NIFS Research Assistant Gr. II
Ms. Sarathchandra K.A.D.M.S.	NIFS Research Assistant Gr. II

Environmental Science Research Programme

Material Development & Pollutants Remediation Research Project

Ms. Madhumekala M.A.K.	NIFS Research Assistant Gr. II (from 01.06.2023)
Ms. Perera M.D.R.	NIFS Research Assistant Gr. II

Water Research Project

Ms. Bandara P.M.C.J.	NIFS Research Assistant Gr. II
Ms. Sewwandi B.V.N.	NIFS Research Assistant Gr. II
Ms. Pathirana P.K.K.	NIFS Research Assistant Gr. II

Evolution, Ecology & Biodiversity Research Programme

Mr. Dayananda D.N.G.	NIFS Research Assistant Gr. II
Ms. Herath K.M.R.K.T.	NIFS Research Assistant Gr. II (from 21.08.2023)

Food Chemistry Research *Programme*

Ms. Ulpatha Kumbura B.S.K.	NIFS Research Assistant Gr. II
Ms. Fahmida H.F.	NIFS Research Assistant Gr. II (from 16.01.2023)

Material Processing & Device Fabrication Research *Programme*

Mr. Medagedara A.T.D.	NIFS Research Assistant Gr. II
Ms. Weerasinghe M.I.U.	NIFS Research Assistant Gr. II
Ms. Mannapperuma M.M.A.K.	NIFS Research Assistant Gr. II
Mr. Gamage D.	NIFS Research Assistant Gr. II

Microbial Biotechnology Research Programme

Mr. Ekanayake S.	NIFS Research Assistant Gr. II
Ms. Jayasinghe S.D.P. N.	NIFS Research Assistant Gr. II
Ms. Jayakody J.A.D.K.N.N.	NIFS Research Assistant Gr. II
Mr. Premarathna U.M.B.	NIFS Research Assistant Gr. I
Mr. Pathirana G.P.R.D.	Temporary Research Assistant

Microbiology & Soil Ecosystems Research Programme

Ms. Bandara S.M.D.C.	NIFS Research Assistant Gr. II
Ms. Premaratne W.D. U.	NIFS Research Assistant Gr. II

Molecular Microbiology & Human Diseases Research Programme

Ms. Gunathilake H.M.S.A.T.	NIFS Research Assistant Gr. II
Ms. Bandara H.M.N.T.	NIFS Research Assistant Gr. II
Ms. Dissanayake D.M.C.L.	NIFS Research Assistant Gr. II

Nanotechnology & Advanced Materials Research Programme

Mr. Fernando W.T.R.S.	NIFS Research Assistant Gr. II
Ms. Naranpanawa H.M.H.D.K.	NIFS Research Assistant Gr. II

Natural Products Research Programme

Ms. Kalinga J.C.	NIFS Research Assistant Gr. II
Ms. Siriwardhane K.D.P.U.	NIFS Research Assistant Gr. II
Ms. Chathurangani S.A.D.	NIFS Research Assistant Gr. II
Ms. Premasiri H.A.K.D.	NIFS Research Assistant Gr. II
Ms. Alakolanga A.G.A.W. *	Grant Research Assistant
	* on leave from Uwa Wellasse University

Nutritional Biochemistry Research Programme

Ms. Prasadini H. R. P.	NIFS Research Assistant Gr. II
Ms. Wickramasinghe M.	NIFS Research Assistant Gr. II
Ms. Jayakodi J.M.Y.U.	NIFS Research Assistant Gr. II

Plant Taxonomy & Conservation Research Programme

Mr. Lekamge P.L.C.U.S.B.	Acting Arboretum Manager
Ms. Premaratne H.K.G.B.M.	Grant Research Assistant
Ms. Agalawala T.	Grant Research Assistant

Rhizobium Project Staff

Mr. Ekanayake E.M.H.G.S.	Research & Development Officer
Mr. Kumara R.K.G.K.	Field Manager
Ms. Aberathne A.H.M.C.D.	Technical Assistant
Mr. Tennakoon A.H.M.A.K.	Technical Assistant

Technical staff attached to Research programmes

Ms. Aluthpatabendi D.M.	Chief Technical Officer
Mr. Athukorale N.P.	Chief Technical Officer
Mr. Jayaweera D.S.	Chief Technical Officer
Mr. Jayasekara Banda W.G.	Chief Technical Officer
Mr. Pathirana G.P.A.K.	Chief Technical Officer
Ms. Perera R.S.M.	Chief Technical Officer
Mr. Jayasinghe H.B.C.	Chief Technical Officer
Ms. Ratnayake R.H.W.M.I.C.	Technical Officer Grade III

Other staff members attached to Research Projects

Mr. Hapukotowa R.B.	Laboratory Attendant- Special Grade
Mr. Wijewardena P.G.N.S.	Primary level-unskilled
Ms. Harischandra D.R.T.L.	Lapidarist Gr. III

Office of the Director

Ms. Jeewa Kasthuri M.D.	Senior Personal Secretary to the Director
Ms. Seneviratne O.W.K.	Stenographer Gr. I
Ms. Liyanage D.M.A.D.E.	Management Assistant Gr. III
Mr. Bandara A.G.J. S.	Office Aid Gr. III

Transport Division (under the purview of Director's Office)

Mr. Gunathilake A.G.S.T.	Management Assistant Gr. III
Mr. Gunasekara K.G.T.B.	Driver- Special Grade
Mr. Dissanayake D.M.D.B.	Driver Gr. III
Mr. Jayasinghe H.A.D.N.	Driver Gr. III
Mr. Abeysinghe K.P.	Driver Gr. III
Mr. Dahanayaka M.N.	Driver Gr. III

Accounts Division

Ms. Samarakkody P.S.S.	Accountant
Ms. Senarath, H.M.C.W.	Accounts Officer
Ms. Palliya Guruge M.P.	Senior Staff Assistant – Clerical
Ms. Rathnayake R.M.V.P.	Senior Staff Assistant – Clerical
Mr. Keshan M.K.D.	Management Assistant Gr. III
Ms. Pamukshi K.G.T.	Management Assistant Gr. III
Mr. Weerasuriya B.J.	Management Assistant Gr. III
Ms. Dineshika K.S.H.	Management Assistant Gr. III

Administration Division

Ms. Karunasinghe W.M.D.C.	Administrative Officer
Ms. Weerasooriya R.P.M.	Senior Staff Assistant- Clerical
Ms. Illangakoon C.L.S.	Senior Staff Assistant- Stenographer
Mr. Gunathilake D.G.	Record Keeper- Special grade
Ms. Sumanaratne H.M.T.L.	Management Assistant Gr. III
Ms. Wijekoon P.H.G.M.K.K.	Management Assistant Gr. III
Mr. Udapitiya U.B.R.S.	Machinist Gr. III
Mr. Peiris T.R.	Electrician Gr. III
Mr. Gunawardena A.D.	Karyala Karya Sahayaka/ Driver
Mr. Dodamwela D.W.G.A.C.	Primary level-unskilled

Computer Division

Ms. Sakalasooriya S.S.K.	Chief Technical Officer
Mr. Randeniya B.B.K.	Technical Officer Grade III

Internal Audit Division

Ms. Madhushani, W.W.M.I.	Internal Audit Officer
Ms. Mekala W.M.A.	Management Asst. Gr. III

Instrument & Maintenance Division

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Mr. Jayasinghe H.B.C.	Chief Technical Officer
Mr. Hasun S.M.M.	Primary level-unskilled

Library

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Ms. Witharana R.M.	Library Assistant Grade III

Procurement & Laboratory Stores Division

Ms. Perera W.D.S.P.	Laboratory Manager
Ms. Jayathissa	Management Asst. Gr. III

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Science Education & Dissemination Unit

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Ms. Samarakoon K.I.K.	Stenographer Gr. I
Mr. Bandara G.C.K.S.	Technical Officer Gr. III
Ms. Herath H.M.G.N.N.	Management Asst. Gr. III
Mr. Senevirathne M.C.V.B.	Audio Visual Assistant
Mr. Malwewa M.G.D.K.	Office Aid Gr. III

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Acting Director, National Institute of Fundamental Studies (NIFS)

Prof. Saluka R. Kodithuwakku (Up to 31.07.2024)
Director, National Institute of Fundamental Studies (NIFS)

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Dr. S. Rajakaruna

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