NATIONAL ACADEMY OF SCIENCES OF SRI LANKA 120/10, Wijerama Mawatha, Colombo 7

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Profiles of Nominees

Annexure I – Notice of the 45th Annual General Meeting of the National Academy of Sciences of Sri Lanka

To: All Fellows of the National Academy of Sciences of Sri Lanka Agenda item – Election of New Fellows

The Council, in terms of Rules 3.11 to 3.13, has recommended the following nominees as eligible for election as Fellows vide rule 3.23.

A: MEDICAL, DENTAL AND VETERINARY SCIENCES

- 01. Prasad Katulanda
- 02. Doluweera Sachith Gopeetha Mettananda
- 03. Nanayakkarawasam Karijjawattage Anjana Silva
- 04. Missaka Priyadarshana Bandara Wijayagunawardane

C: ENGINEERING, ARCHITECTURE & SURVEYING

05. Saman Kumara Halgamuge

E: PHYSICAL SCIENCES

- 06. Gallolu Kankanamalage Rohan Senadeera
- 07. Nalaka Deepal Subasinghe

G: SOCIAL SCIENCES & ANTHROPOLOGY

- 08. Dileni Nirmala Bernadette Gunewardena
- 09. Shihan Malkanthi Devika de Silva Jayasooriya
- 10. Suresh Jude Sincere de Mel

Date: 23rd January 2024

Schedule to Annexure I



NATIONAL ACADEMY OF SCIENCES OF SRI LANKA Nominee Details

2023-2024

A: Medical, Dental and Veterinary Sciences

1) Prasad Katulanda

(Prasad Katulanda)

Proposer: Prof. Vajira Dissanayake **Seconder:** Prof. Saroj Jayasinghe

Date of Birth: 18th May 1970

Profession: Professor

Qualifications: MBBS (Colombo), MD (Colombo), D Phil (Oxford)

Scientific Achievements:

Prasad is the Professor in Clinical Medicine and Head of the Department of Clinical Medicine of the University of Colombo. He graduated MBBS with First Class Honors with 8 distinctions and 11 medals. He was adjudged the Student of the Year of the University of Colombo in 1998. He obtained MD from the University of Colombo and D.Phil from the University of Oxford as a commonwealth scholar.

Prof. Prasad has been recognized nationally and internationally for his academic, clinical and research accomplishments with fellowships from the Ceylon College of Physicians, Royal College of Physicians of London, American College of Endocrinologists, Sri Lanka College of Endocrinologists, and Harris Manchester College, University of Oxford. Prasad has been awarded the Presidential award for Scientific Publications on 9 occasions, the Best Researcher Award of his Faculty in 2014, and the Ten Outstanding Young Persons award of the Junior Chamber International in 2009.

Prof. Prasad's pioneering work on diabetes and other non-communicable disorders in Sri Lankans in particular and in South Asians in general has resulted in 153 papers with an hindex of 43 and a citation count of 8857 making him the 5th most cited researcher in his University in any field. He translates his research into practice through the leadership roles that he plays.

Prof. Prasad has shown scientific leadership through the many positions that he holds in the Faculty, the University, the National Hospital of Sri Lanka, Professional medical colleges and associations, and at national level committees. He was recognised for scientific accomplishment and leadership in 2019 when he was conferred the national titular honour of Vidya Jyothi – the highest national honour in the field of science.

2) Sachith Mettananda

(Sachith Mettananda)

Proposer: Prof. Asiri Abeyagunawardena **Seconder:** Prof. Nilanthi de Silva

Date of Birth: 17th December 1977

Profession: Professor

Qualifications: MBBS (Colombo), MD (Colombo), DCH (Colombo), D Phil (Oxford)

Scientific Achievements:

D.S.G. Mettananda graduated MBBS(Colombo) with nine Distinctions, First Class honours and Gold Medal for the Best Performance. He won the SLCP Gold Medal for the best performance at DCH(Colombo) and obtained MD-Paediatrics(Colombo) becoming first in merit. He graduated DPhil from University of Oxford and was elected as fellow of RCPCH, RCP(London) and RCP(Edin).

Prof. Mettananda has won President's Awards for Scientific publications in 2011, 2016, 2017 and 2018, TOYP Sri Lanka Award in 2016 and E.M.Wijerama, H.K.T.Fernando, Frank Gunasekera, S.E.Seneviratna and Nicholas Attygalle Awards from the Sri Lanka Medical Association. He delivered four orations, including SLMA oration, CC de Silva Oration, Dr Arunasalam Sivapathasundaram Lecture and N.D.W. Lionel Oration. He was selected the most Outstanding Early-Carrier Paediatrician in Sri Lanka, Young Physician Leader by the NASSL and IAP and was ranked among the top 2% Scientists of the World. He has authored over 95 peer-reviewed publications mostly on laboratory, clinical and translational research in thalassaemia.

Prof. Mettananda developed a novel CRISPR genome editing strategy to silence alpha-globin to treat thalassaemia. He conducted the first-ever randomised double-blind placebo-controlled clinical trial of hydroxyurea for thalassaemia. He improved clinical diagnostic services for thalassaemia in Sri Lanka and established a fully equipped haematopoietic stem cell laboratory through grants from the MRC and Academy of Medical Sciences, UK. All these helped to improve the treatment of thalassaemia.

Prof. Mettananda is currently the Chair Professor and Head of Department of Paediatrics, University of Kelaniya. He is the Chairperson/Research Management Committee of Faculty of Medicine and Secretary/ Board of Study in Paediatrics at PGIM. He serves as Council Member of National Health Research Council, National Thalassaemia Council, Sri Lanka College of Paediatricians, Perinatal Society and Clinical Trials Evaluation Committee of the NMRA.

3) Nanayakkarawasam Karijjawattage Anjana Silva (Anjana Silva)

Proposer: Mr. Rohan Pethiyagoda **Seconder:** Prof. S A M Kularatne

Date of Birth: 14th October 1980

Profession: Professor

Qualifications: MBBS (Peradeniya), MPhil (Peradeniya), PhD (Monash)

Scientific Achievements:

Prof. Anjana Silva graduated from the University of Peradeniya with an MBBS (2007) and an MPhil (2013). He obtained his PhD in Toxinology at Monash University, Australia, winning the Vice-Chancellor's award for thesis excellence. He was elected a Fellow of the Royal College of Physicians, Edinburgh, in 2020.

Prof. Anjana received the Third World Academy for Scientists' Award for the Best Young Researcher (2013) and was selected as one of the 20 Global Young Physicians Leaders by the Intra-Academy Medical Panel (Berlin, Germany, 2013), receiving research awards from all three major global associations of clinical toxicologists (European, North American and Asia-Pacific). He received the Health Research Prize from the Kandy Society of Medicine in 2019 and CVCD Excellence Award for the Most Outstanding Young Researcher in Medical, Dental, Veterinary and Health Sciences in 2020. He has six Presidential Awards for scientific publications.

Prof. Anjana is a world-renowned expert of snakebite and venom toxinology: investigating the pathophysiology of snake envenoming and the role of antivenom treatment. He combined epidemiological, clinical and experimental studies for a better understanding of snakebite and to provide key evidence for improving snakebite management, from diagnosis to treatment. He is also a biodiversity scientist and explorer, with the discovery of 11 new species of freshwater fishes, lizards and snakes to his credit. He has authored 62 international publications. His Google H-index is 23.

He is a Professor in the Department of Parasitology, Faculty of Medicine and Allied Sciences, Rajarata University, and an Adjunct Senior Research Fellow at Monash University. Anjana's research leadership led to the establishment of the Anuradhapura Snakebite Cohort in 2012 (the world's largest such initiative) and the country's only venom pharmacology laboratory at Rajarata University, facilitating seven ongoing MPhil and PhD projects and one completed PhD.

4) Missaka Wijayagunawardane

(Missaka Wijayagunawardane)

Proposer: Prof. Lalith Jayasainghe **Seconder:** Prof. S.A.M Kularatne

Date of Birth: 02nd October 1964 **Profession:** Senior Professor

Qualifications: BVSc (Peradeniya), PhD-Animal Gynecology (Japan)

Scientific Achievements:

Prof. Missaka Wijayagunawardane is a Senior Professor and the Chair Professor of Animal Science, Faculty of Agriculture, University of Peradeniya. He has a PhD in Animal Gynecology (1999), and is a Founder Fellow of Sri Lanka College of Veterinary Surgeons (FSLCVS). He also served as a Fellow Professor, Department of Zoology, The University of Melbourne, Australia in 2010, and a Visiting Professor, College of Veterinary Medicine, Cornell University, USA in 2008.

For his research activities, He was awarded the "Australian Alumni Excellence-Endeavor" Award in 2014, "Young Scientist of Sri Lanka" in the year 2008, Presidential Research Awards by HE the President of Sri Lanka for 07 year. Further, he was awarded Research Fellowships from Japan Society for the Promotion of Science 4 times, Alexander von Humboldt Foundation, Germany 2 times, Fulbright-USA, Endeavour Award, Australia, and Royal Society, UK.

Prof. Missaka secured funds for research activities through 18 competitive research grants from Local and international organizations. These activities resulted 59 peer reviewed journals, including 52 in SCI journals, 08 Books/Chapter of Books, 09 Popular Articles, 10 Keynotes/Invited Presentations, and more than 100 presentations in learned societies (Local and foreign). His research publications have received h-index of 23.

He was the Founder Director of Sri Lanka Japan Study Centre, University of Peradeniya, and organized the conference on Sri Lanka Japan Collaborative Research from 2013 to 2016, He is also serving as the founder Secretary General of Sri Lanka Association of Alexander von Humboldt Fellows. He served as the Australia Award Ambassador of Sri Lanka in 2015. In 2018, He was also appointed as a Research Council member in 2019 as a member of Board of Governors of National Institute of Fundamental studies

C: Engineering, Architecture and Surveying

5) Saman Halgamuge

(Saman Halgamuge)

Proposer: Prof. Priyan Dias **Seconder:** Prof. Ananda Jayawardana

Date of Birth: 22nd May 1962

Profession: Professor

Qualifications: BSc (Moratuwa), Dipl.-Ing (Darmstadt, Germany), Dr.-Ing.

(Darmstadt, Germany)

Scientific Achievements:

Saman Halgamuge, PhD, is a mechanical engineering Professor at the University of Melbourne (UNIMELB), with 300 publications in Google Scholar (h-index 51; 13500 citations). He is in the top 2% of Artificial Intelligence (AI) researchers globally as per the Stanford-Elsevier database (Scopus h-index 40). He has secured external research grants over 26.5 million AUD, and 50 PhD Studentships. He was the founding Chief Editor of Frontiers Journal on Mechanical Engineering – Mechatronics (2015-21). He is a Fellow of the Institute of Electrical and Electronic Engineering (IEEE), and Institute of Engineering Technology (IET).

Early in his career, Prof Halgamuge earned a Neural Network Leadership Prize (awarded to 5 researchers) at the World Congress of the International Neural Network Society, 1995. He has now delivered over 50 invited keynotes at major conferences, and was made a Distinguished Lecturer by the IEEE Computational Intelligence Society in 2019. He has held the Prof VK Samaranayake endowed chair of Computing at University of Colombo and UNDP sponsored visiting fellowships to University of Peradeniya and NIFS. He has held visiting professorships in Indonesia, Singapore, Malaysia and China.

Prof. Halgamuge has tackled two central weaknesses in AI: lack of internal transparency that gives rise to socially irresponsible AI; and lack of accessibility that limits AI to only a few disciplines. His contributions to "evolutionary algorithms" and "unsupervised learning" have made AI widely accessible, through his strategic collaborations in smart power grids, irrigation, electric vehicles and biomedical research.

Prof. Halgamuge has served as Director/Head, School of Engineering of the Australian National University (2016-18) and as a member of Australian Research Council (ARC) College of Experts for Engineering, Information and Computing Sciences (2016-18). He was the founding Director of the international PhD training centre at UNIMELB; and Associate Dean in International Engagement (2013-15) in the Melbourne School of Engineering.

E: Physical Sciences

6) Gallolu Kankanamalage Rohan Senadeera (Rohan Senadeera)

Proposer: Prof. Siril Wijesundara Seconder: Prof. M.A.K.L. Dissanayake

Date of Birth: 29th July 1963 **Profession:** Professor

Qualifications: BSc Hons (Peradeniya), PhD (Peradeniya), PGD Chemical Sciences and

Chemical Engineering (TIT); PGD Medical Physics (Peradeniya)

Scientific Achievements:

Rohan Senadeera, PhD (Perad (sandwich-DTU Denmark)) has over 255 research publications 78 in SCI and 13 in other refereed journals and 174 conference abstracts with and H-index of 29 and over 3000 citations (08 papers cited > 100 times). He has supervised 04 awarded PhDs with 02 others in processes, 05 M. Phills 03 others in process and 04 MSc students. He has received research grants as the PI of over 12 million by the NRC, NSF, TWA(Italy) and OUSL and 40 million grant by the AHEAD (DoR-9).

Prof. Senadeera has won 12 Presidential Awards for Scientific Publications, 3 NRC Merit Research Awards, 10 OUSL Research Awards and one SUSRED award from NSF of Sri Lanka. He has received postdoctoral fellowships, UNESCO-Mumbusho and JSPS from Japan and Scincia 2008 Fellowship from Portugal.

Since he joined the Institute of Fundamental Studies (IFS) (now NIFS) in 1999 as the Project Leader of Solid-State Chemistry project, he has been conducting research investigations in the area of dye-sensitized solar cells (DSSCs) and other devices based on semiconductor nanostructures. During this period, different types of DSSCs have been constructed and studies aimed at understanding the mechanism of operation of these devices. He has jointly obtained Sri Lankan, 01 Japanese and 01 Portuguese patent.

Currently he is serving as a Professor in the Department of Physics of the Open University of Sri Lanka (OUSL). He has served three years as the Faculty Coordinator of the Kandy Regional Centre of the OUSL He was instrumental in developing undergraduate research laboratories at the KRC and also a research lab facility from the stretch. After he has joined the OUSL, he has served 03 years as a Research council member of the National Institute of Fundamental Studies Kandy.

7) Deepal Subasinghe

(Deepal Subasinghe)

Proposer: Prof. Lalith Jayasinghe Seconder: Prof. C. B. Dissanayake

Date of Birth: 6th February 1964

Profession: Professor

Qualifications: BSc Hons -Physics (Peradeniya), M Phil (Peradeniya), PhD (Reading,

UK)

Scientific Achievements:

Deepal Subasinghe accomplished his BSc at the age of 21, followed by an MPhil from the University of Peradeniya. He subsequently won the merit based Australian Development Corporation Scholarship Scheme (ADCSS) to pursue his research career at Macquarie University, Australia. He received the merit-based Faculty Postgraduate Research Scholarship from the University of Reading, UK, and the Overseas Research Students Award (merit), to complete his PhD at Reading University. In 2003, he received the prestigious Australian Research Council (ARC) Postdoctoral Fellowship at RMIT University.

Prof. Subasinghe's scholarly endeavors have been acknowledged with grants from local (NRC, NSF) and international (e.g. IAEA, Aust. Research Council, NERC(UK), etc.) agencies, as well as prestigious awards including the President's Award for Scientific Publications for several years. He served as the President of the Geological Society of Sri Lanka (GSSL) in 2018.

Prof. Subasinghe's research spans diverse fields, including economic geology, mineralogy, renewable energy, and science policy making. Based on his research findings, a recommendation was made to implement selective mining of the Eppawala phosphate deposit, significantly improving product quality and earnings. His comprehensive study on geothermal resources in Sri Lanka identified their commercial potential, leading to proposals being submitted to the government for development of Sri Lankan geothermal resources. Additionally, he mentored numerous young scientists and postgraduate students and published in reputed scientific journals, elevating the academic ranking of the country.

Prof. Subasinghe established geology and geophysics courses at the Open University of Sri Lanka, and initiated geophysics research at the NIFS. He also pioneered thermoelectricity research in Sri Lanka, and popularized this field through public speeches and lectures, inspiring other researchers to explore its potential. As the President of the GSSL, Prof. Subasinghe led the society to achieve remarkable progress.

G: Social Sciences & Anthropology

8) Dileni Nirmala Bernadette Gunewardena

(Dileni Gunewardena)

Proposer: Prof. Kamala Liyanage **Seconder:** Prof. Chandani Perera

Date of Birth: 26th November 1964

Profession: Economist

Qualifications: BA Hons-Economics (Peradeniya), PhD–Economics (American

University)

Scientific Achievements:

Dileni Gunewardena (B.A. First Class Honours, Peradeniya, 1990, Ph.D. American University, 1996) is Professor of Economics (Chair) at the University of Peradeniya with 30+ years' experience in development policy-oriented research and teaching in national and international institutions, in poverty and inequality analysis, gender economics, child nutrition and human development.

She has been a Fulbright Scholar, a Brookings Institution Echidna Global Scholar, adjunct professor and visiting scholar at American University, and has twice won Global Development Network awards for her research on poverty and on gender wage gaps. She is a Scopus indexed researcher with publications in high impact factor journals such as the Journal of Development Economics, is the co-author of several World Bank Policy Working Papers, has contributed to two World Development Reports and recently co-authored a book in the Routledge Studies in Development Economics. She has a Google Scholar h-index of 13, an i10 index of 16, and 844 citations. She has consulted for the World Bank and the UNDP and contributed to World Bank Poverty Assessments, and Sri Lanka National Human Development Report and Millennium Development Goals Reports.

At Peradeniya, she initiated a MacArthur Foundation supported, globally affiliated, Masters in Development Practice, and a Gender Economics postgraduate teaching and research initiative supported by Open Science Foundation and American University. She was a member of the core team that led the Arts Faculty transition to the course unit system.

She is a Partnership for Economic Policy (PEP) Research Fellow and scientific expert. She led a multi-country team in developing an online course on Gender Analysis and Economic Policy Research for PEP, reaching students from 20 countries across Africa, Asia and Latin America. She is a member and a former board director of the Centre for Poverty Analysis and is a Non Resident Fellow of Verite Research.

9) Shihan Malkanthi Devika de Silva Jayasooriya

(Shihan de Silva Jayasooriya)

Proposer: Prof. CM Madduma Bandara **Seconder:** Prof. K. Tudor Silva

Date of Birth: 08th September 1953 **Profession:** Senior Research Fellow

Qualifications: BSc Hons – Economics (London); MSc – Finance (London);

PhD – Linguistics (Westminster)

Scientific achievements:

Academic qualifications of Shihan de Silva Jayasooriya include, BSc (Econ) Honours (Second Class Upper), University of London; MSc Finance, University of London; PhD University of Westminster, London (Dissertation: Indo-Portuguese of Ceylon). He is a Senior Research Fellow, Institute of Commonwealth Studies, University of London; Senior Associate, Lucy Cavendish College, University of Cambridge; Lecturer, Faculty of History, University of Cambridge; Affiliated Collaborator, Department of Sociology, University of Colombo; Visiting Professor, College of International Relations, Ritsumeikan University, Kyoto; Visiting Fellow, Lucy Cavendish College, University of Cambridge; Visiting Fellow, International Institute of Social History, Amsterdam; Collaborative Lecturer, University of Hawaii; Visiting Lecturer, Japan Society for the Promotion of Science; and Co-founder/Co-coordinator, The African Diaspora in Asia; Research Associate, Portuguese & Brazilian Studies, King's College London.

Chair, National Committee on Intangible Cultural Heritage, ICOMOS Sri Lanka; Elected Fellow, Royal Asiatic Society Great Britain and Ireland; Expert, Afro-Asians, UN OHCHRC, Geneva; Member and Rapporteur, International Scientific Committee, UNESCO Slave Route Project; Editorial Board, Africa, Leiden; Editorial Board, Journal of African Diaspora Archaeology and Heritage; Advisory Committee, Encyclopedia of the African Diaspora, ABC-CLIO; Editorial Advisor, Cambridge Scholars Publishing; Advisor, Editorial Board, Information, Society and Justice; Rama Watumull Collaborative Lecture Series award, Center for South Asian Studies & Student Equity, Excellence and Diversity Award, University of Hawaii.

Dr Shihan's publications on Sri Lanka's pluralism and diversity highlighting issues of identity and inclusivity, perceiving multilingual and multicultural capital of communities are considered as assets to society.

Dr Shihan has been convening conferences, editing multi-author books, writing the foreword to books, chairing the National Committee on Intangible Cultural Heritage, ICOMOS (Sri Lanka) and leading the World Bank Project on Discourse Communities at the University of Kelaniya.

10) Suresh de Mel

(Suresh de Mel)

Proposer: Prof. Priyan Dias **Seconder:** Prof. Namal Priyantha

Date of Birth: 05th September 1964

Profession: Professor

Qualifications: B.Sc.Eng., MA(Econ), PhD(Econ), CIMA

Scientific Achievements:

Suresh de Mel, B.Sc.Eng., MA(Econ), PhD(Econ), CIMA, is Professor in Economics at the University of Peradeniya. He has a global scholar h-index of 21, with 5141 citations (one paper cited over 1500 times; four over 400 times and three over 200 times), rare indeed for a social science scholar. He serves as research affiliate at the Abdul Lateef Jameel Poverty Action Lab (Massachusetts Institute of Technology), International Growth Centre (London School of Economics) and Innovations for Poverty Action (Yale). He was also invited as Visiting Associate Professor at the National University of Singapore (NUS).

Prof. de Mel has won a Research Excellence award at the University of Peradeniya, being recognized as a Tier 4* researcher. In addition, he has a Presidential Award for Scientific Publication for an article published in the prestigious journal Science, a rare recognition of the high level of scientific innovation within a social sciences work.

Prof. de Mel has contributed to a global scholarly movement which has used the randomized controlled trials (RCTs) approach, typically associated with the field of medicine, to study social science problems. In collaboration with overseas researchers, he has led the on-the-ground implementation of several such RCTs related to the microenterprise/SME sector and financial inclusion areas. This innovative work evaluates the quantitative and qualitative impacts of capital injections, business training, formalization, profit measurement method, access to loans and gender on microenterprise performance. The work has been published in highest impact Economics journals, and also included as reference material in courses at highly ranked international universities.

Prof. de Mel has served as Chair of the Board of Study for Economics & Management and Member of the Board of Management, Postgraduate Institute of Humanities & Social Sciences (PGIHS) at the University of Peradeniya. He is currently the Director of the PGIHS.