

RESEARCH @



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RECOGNITIONS:

Georg Forster Research Award

Prof. Rohana Chandrajith from the Department of Geology, Faculty of Science, received the prestigious Georg Forster Research Award from the Alexander von Humboldt Foundation, Germany. The nomination was submitted to the Foundation and its selection committee by Prof. Dr. Johannes Barth, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen/Germany. This award is conferred in recognition of the award winner's entire academic record to date. The university announces that the award winners are invited to carry out research projects of their own choice in cooperation with specialist colleagues in Germany.

AD SCIENTIFIC INDEX 2021

There are 146 researchers from the UoP in this index, and the first 50 are listed here.

Name	UoP ranking	Country ranking	Discipline	H-index
Samath D Dharmaratne	1	2	Medical and Health Sciences/ Injury Prevention, health economics	62
Ayesh Jayasinghe	2	3	Natural Sciences / Physics	62
Janaka Ekanayake	3	9	Engineering & Technology /Electrical & Electronic Engineering	45
Sam Kularatne	4	19	Medical and Health Sciences/ Tropical Medicine	35
W M Tilakaratne	5	21	Medical and Health Sciences / Oral Pathology	34
R P V J Rajapakse	6	35	Medical and Health Sciences / Veterinary Parasitology	30

Parakrama Karunaratne	7	39	Agriculture & Forestry / Zoology	29
R M G Rajapakse	8	40	Natural Sciences / Chemical Sciences	29
Rohana Chandrajith	9	44	Engineering & Technology / Earth Sciences	28
Indika Gawarammana	10	46	Medical and Health Sciences / Pharmacology and Toxicology	27
Lilani Ekanayake	11	50	Medical and Health Sciences / Epidemiology and Public Health	27
Namal Priyantha	12	59	Natural Sciences / Chemical Sciences	26
Niranjana Rajapakse	13	60	Engineering & Technology / Food Science and Engineering	25
Eresha Mendis	14	61	Engineering & Technology / Food Science and Engineering	25
Fahim Mohamed	15	62	Medical and Health Sciences / Pharmacology and Toxicology	25
B M R Bandara	16	63	Natural Sciences / Chemical Sciences	25
Pubudu Samarasekara	17	70	Natural Sciences / Physics	24
W A J M De Costa	18	79	Agriculture & Forestry / Crop Production and Plant Breeding	23
Suresh De Mel	19	81	Economics & Econometrics / Economics	22
Gayana Bowatte	20	83	Engineering & Technology / Environmental Engineering	22
Oliver Ileperuma	21	84	Natural Sciences / Chemical Sciences	22
D Nedra Karunaratne	22	85	Natural Sciences / Chemical Sciences	22
Missaka Wijayagunawardane	22	87	Medical and Health Sciences / Animal Science	22
Athula Bandara	24	93	Natural Sciences / Chemical Sciences	24
Nishan Sudheera Kalupahana	25	96	Medical and Health Sciences/Obesity, Nutrition	21
Avanthi Igalavithana	26	103	Engineering & Technology / Environmental Engineering	21
Kalana Maduwage	27	104	Medical and Health Sciences / Biochemistry	21
Neelakanthi Ratnatunga	28	106	Medical and Health Sciences / Pathology	21
I A U Nimal Gunatilleke	29	108	Natural Sciences / Biological Science	20
J K Vidanarachchi	30	109	Medical and Health Sciences / Animal Science	20

R Sivakanesan	31	115	Medical and Health Sciences / Biochemistry	20
Roshan G Ragel	32	117	Engineering & Technology / Computer Science Embedded	20
T M W J Bandara	33	118	Engineering & Technology / Energy Engineering	20
Chandani Perera	34	120	Natural Sciences / Chemical Sciences	19
H M T G A Pitawala	35	132	Engineering & Technology / Earth Sciences	19
Sanjeewa Malaviarachchi	36	133	Engineering & Technology / Earth Sciences	19
Rupika Rajakaruna Amarakoon	37	136	Agriculture & Forestry / Zoology	19
Chamila Gunathilake	38	137	Engineering & Technology / Nanoscience and Nanotechnology	19
Samadarani Siriwardena	39	145	Medical and Health Sciences / Oral Pathology	18
Shameen Jinadasa	40	165	Engineering & Technology / Civil Engineering	17
Sarath P Nissanka	42	169	Agriculture & Forestry / Crop Production and Plant Breeding	17
Suriyagoda Lalith	43	170	Agriculture & Forestry / Agriculture	17
Buddhi Marambe	44	173	Agriculture & Forestry / Crop Production and Plant Breeding	17
Terrence Madhujith	46	190	Engineering & Technology / Food Science and Engineering	16
M I M Mowjood	47	193	Agriculture & Forestry / Agricultural and Biosystems Engineering	16
M A R M Fernando	48	196	Engineering & Technology / Electrical & Electronic Engineering	16
Anura Wickramasinghe	49	201	Natural Sciences / Chemical Sciences	16
H B S Ariyaratne	50	211	Medical and Health Sciences / Veterinary Sciences	15

FUNDING OPPORTUNITIES

Research Grants

ERC 2021 AdG ADVANCED GRANTS- HORIZON EUROPE, EXCELLENT SCIENCE EU & OTHER FUNDERS: Yet to open

Closing date: April 28 2022

Description: Support for excellent Principal Investigators at the career stage at which they have already established research leaders with a recognized track record of research achievements. Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their research proposal

Funding amount: Up to EUR 2 500 000 for a period of 5 years. Additional funding up to EUR 1 000 000 for the total programme.

Who is eligible to apply: Any age, any nationality; Preferably working on frontier of Science, Scholarship & Engineering.

Website:https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2022/wp_horizon-erc-2022_en.pdf

RESEARCH GRANTS ON EDUCATION: SPENCER FOUNDATION

Closing date: December 1, 2021, with November 10 Expression of Interest

Description: The Small Research Grants Program supports education research projects that will contribute to the improvement of education, broadly conceived, with budgets up to \$50,000 for projects ranging from one to five years. We accept applications three times per year. This program is “field-initiated” in that proposal submissions are not in response to a specific request for a particular research topic, discipline, design, method, or location. Our goal for this program is to support rigorous, intellectually ambitious and technically sound research that is relevant to the most pressing questions and compelling opportunities in education.

Funding amount: up to \$50,000 for projects ranging from one to five years

Who is eligible to apply: must have an earned doctorate in an academic discipline or professional field or appropriate experience in an education research-related profession.

Website: https://www.spencer.org/grant_types/small-research-grant.pdf

Fellowships

LADY DAVIS FELLOWSHIP TRUST

Closing date: November 30 2021

Description: Visits are for two months to a year during the Academic Year at the Technion. The monthly salaries are (a minimum of) U.S. \$2,400 (Professor) and U.S. \$2,000 (associate professor). The monthly housing allowance is U.S. \$100. Payments are made in Israeli Shekels and linked to the representative rate of exchange. Visitors are entitled to one airline ticket (Apex or similar kind of ticket) for a direct flight from their home town to Israel and back. Israel has double-taxation agreements with the U.S., Canada, G.B., Austria, Italy, Belgium, Germany, Holland, Finland, France, Singapore and the Scandinavian countries, avoiding double taxation. Citizens of other countries pay minimal taxes on their salary.

Funding amount: Minimum: USD 4200 Maximum: USD 30,000

Who is eligible to apply: Those who work in Physical Sciences & Engineering disciplines

Website:<http://ldft.huji.ac.il/fellowships-information/technion-fellowships/visiting-professors>

WOMEN IN TECHNOLOGY SCHOLARSHIP: ZONTA INTERNATIONAL FOUNDATION

Closing date: October 15 2021

Description: The world economy continues to leverage and build upon the digital revolution, and industry is becoming critically dependent on information technology. Further, these developments are increasingly disrupting society and familiar social processes. Women, however, are still largely underrepresented in decisions as they relate to information technology and how they impact our world now and into the future. To create a world in which men and women have equal opportunities, women need to have an active role in the field of information technology and access to leadership roles such as chief information officers (CIOs) and chief technology officers (CTOs). Zonta International is pleased to support the Zonta International Women in Technology Scholarship to encourage women to pursue education, career opportunities and leadership roles in information technology.

Funding amount: Up to 20 scholarships of US\$8,000 each

Who is eligible to apply: Women of any age and nationality, pursuing an Information Technology (I.T.) degree at an accredited university/college/institute, who demonstrate an outstanding academic

record during their academic studies, including information technology subjects.

Website:https://www.zonta.org/Web/Programs/Education/Women_in_Technology_Scholarship

Awards

KHWARIZMI INTERNATIONAL AWARDS- IRANIAN RESEARCH ORGANIZATION FOR SCIENCE & TECHNOLOGY

Closing date: November 1 2021

Description: The Khwarizmi International Award seeks to recognize the efforts made by researchers, innovators and inventors from all over the world and to appreciate their invaluable achievements and contributions to various fields of science and technology. The Khwarizmi International Award is named in memory of the achievements of Muhammad ibn Musa al-Khwarizmi, the Iranian mathematician and astronomer.

Prize: Reviewed every year

Who is eligible to apply: Applications are accepted in the following fields: Aerospace, Civil Engineering, Materials, Metallurgy & New Energies, Agriculture, Natural Resources, Animal Sciences & Veterinary Medicine, Electrical & Computer, Mechanics, Basic Sciences, Green Technology, Mechatronics, Biotechnology & Basic Medical Sciences, Industry & Technology Management, Medical Sciences, Chemical Technologies, Information Technology, Nanotechnology.

Website: <http://www.irost.org/kia/node/358>

SUSTAINABLE INNOVATION CHALLENGE: FAMAE FOUNDATION

Closing date: October 15 2021

Description: The FAMAE Challenge aims to support brilliant innovations that have a positive impact on our planet's health. It is open to anyone, anywhere - entrepreneurs, SMEs, students, researchers, associations, local authorities—with solutions for a more sustainable and responsible world, in line with the current environmental and health emergencies.

Prize: 1 million EUR

Who is eligible to apply: Teams of applicants from Education (e.g. students, professors, researchers), Business (e.g. start-ups, SMEs)

and Philanthropy (e.g. NGOs, associations) anywhere in the world. Applicants cannot have two applications running in parallel.

Website: <https://memento.epfl.ch/event/famae-foundation-sustainable-innovations-challenge/>

PhD opportunities

SINGAPORE INTERNATIONAL GRADUATE AWARD

Closing date: December 1 2021

Description: PhD training will be carried out in English at your chosen lab at A*STAR Research Institutes, NTU, NUS, SUTD or SMU. Students will be supervised by distinguished and world-renowned researchers in these labs. Upon successful completion, students will be conferred a PhD degree by either NTU, NUS, SUTD or SMU.

Funding amount: Includes Tuition fees, Monthly stipend of S\$2,000, which will be increased to S\$2,500 after the passing of the Qualifying Examination. One-time airfare grant of up to S\$1,500*. One-time settling-in allowance of S\$1,000*

Who is eligible to apply: Research areas under the PhD Programme fall broadly under two categories: Biomedical Sciences; and Physical Science and Engineering.

Website: <https://www.a-star.edu.sg/Scholarships/for-graduate-studies/singapore-international-graduate-award-singa>

RESEARCH RESOURCES

Research Publication Facilitation Fund

The University Research Council [URC] is pleased to announce that it has initiated a scheme to provide financial assistance up to a maximum of USD 1000.00 per year for the researchers of University of Peradeniya to facilitate publishing their research findings in high ranking peer reviewed journals. We invite you to utilize this facility by downloading an application form from: [Application for Article Processing Charge | University Research Council | Peradeniya \(pdn.ac.lk\)](#)

Writing Winning Proposals to Secure International Grants

Recording of the Webinar on “**Writing Winning Proposals to Secure International Grants**” which was held on August 10, 2021, can be found under the following link. This was organized by the National Science Foundation (NSF) of Sri Lanka in collaboration with the International Relations Office (InRO) of the University of Peradeniya and the Sri Lanka Academy of Young Scientists (SLAYS). We would like to thank InRO for providing this link.

<https://www.youtube.com/watch?v=vvrXcg8znQI> and

<https://www.youtube.com/watch?v=3rPwgZAA0JI>

A Guide to Writing Good Papers

Do you know how to successfully submit your research and avoid the most common pitfalls? Whether you are a new author or an experienced one, this 3 minutes and 34-second video guide provides five top tips to help you submit the best papers. Even though the subject area is renewable energy, the content is useful for any discipline.

You can access the video via: tv.theiet.org/?videoid=14930

UPCOMING EVENTS

Introduction to MATLAB for Biologists	
Date	September 28, 2021 from 9.00 am to 12.00 pm
About	<p>MATLAB is a high-performance language for technical computing. It integrates computation, visualization, and programming in an easy-to-use environment where problems and solutions are expressed in familiar mathematical notation. The objective of this virtual programme is to give an introduction to MATLAB for those who do research/teaching on biological sciences.</p> <p>Speaker: Dr. W.A.N.I. Harischandra Department of Electrical & Electronic Engineering University of Peradeniya</p>
Registration link	https://forms.gle/EZdNBqRwu4dquQJa8

Impacts, pathways to impacts, and some impact case studies	
Date	During the month of October
About	<p>The research project resulted in outputs, outcomes, and impacts. Outputs are results obtained during and soon after the completion of the research project. Outcomes are the results achieved after a period of time, and impacts are the long-term result that came about because of the activities undertaken in the project. For many foreign-funded projects, it is required to define economic impacts, public policy and services, society, culture and creativity; health impacts, practitioners and professional services; and impacts on the environment. Also, pathways to achieve these impacts should be defined at the proposal stage.</p> <p>Speakers: Prof. Danture Wickramasinghe Professor in Accounting DAM Smith Business School University of Glasgow, UK</p> <p>Prof Vladimir Terzija, Full Professor, Skolkovo Institute of Science and Technology, Russian Federation</p>
Registration link	Will be notified soon

NEWS

Prof. J.B. Ekanayake was appointed as the Director of the URC with effect from 17/09/2021. He is the Chair Professor of Electrical and Electronic Engineering of the University of Peradeniya. He is also a visiting professor at the Institute of Energy at Cardiff University, UK. and an Honorary Professor of the School of Electrical, Computer and Telecommunication Engineering, the University of Wollongong, Australia. Prof. Ekanayake is a Fellow of IEEE (USA), IET (UK), and IESL, Sri Lanka.

His professional involvements include a member of the editorial board of Nature scientific reports (September 2021 to date), Green Technology, Resilience, and Sustainability (June 2021 to date), IET Journal of Renewable Energy (2015 to date), Journal of Wind Energy (2013 to date),

IEEE Transaction on Energy Conversion (2007 to 2017), and Ceylon Journal of Science (2016 to 2018).

ANALYSIS

This is the new blackboard to write your views about how to enhance our research outputs, outcomes and impacts based on your own experiences

Research overview: University of Peradeniya

The University of Peradeniya has been ranked among the world's top 500 Universities for the 3rd consecutive year and number one university in Sri Lanka according to Times Higher Education Ranking 2022. I am sure all of us should be proud of this achievement. **Did you ever try to analyze this outcome and see how we could go up in these league tables and where we have the most opportunities?** As per different indicators Times uses, we have the following scores out of 100:

- Teaching - 17.4 marks,
- Research - 8.4 marks,
- Citations - 100 marks,
- Industry income - 35.6 marks, and
- International outlook - 41.3 marks.

While research is the weakest link, that means that we have the most opportunity to grow in that area. Hence, most emphasis should be placed on research. When one looked at the criteria for assign marks for research, it is based on the following indicators:

- Academic Reputation Survey that they run annually: This metric quantifies the perceived prestige of the institution in research amongst its international peers. For this indicator, the academic staffs' reputation as prestigious scholars internationally plays a key role.
- Research income per staff: This is essentially the research income generated through grants as world-class research hinges upon income. Hence, targeting high-income grants has a direct influence on this indicator. As most highly valued grants are multi-disciplinary, such activities should be promoted.

- Papers published in Scopus database per scholar: Publications in Elsevier's Scopus indexed Journal's.

As the first two are not transparent, I tried to look at the Scopus papers having the University of Peradeniya as an affiliation in the last seven years. Figure 1 shows how we did compare to two adjacent universities (one above and one below) in our cohort in the Times Higher Education Ranking. It is clear that we have the lowest number of papers overall with a more or less flat profile. Two curves above us can be set as our benchmark, indicating a clear opportunity to improve ranking.

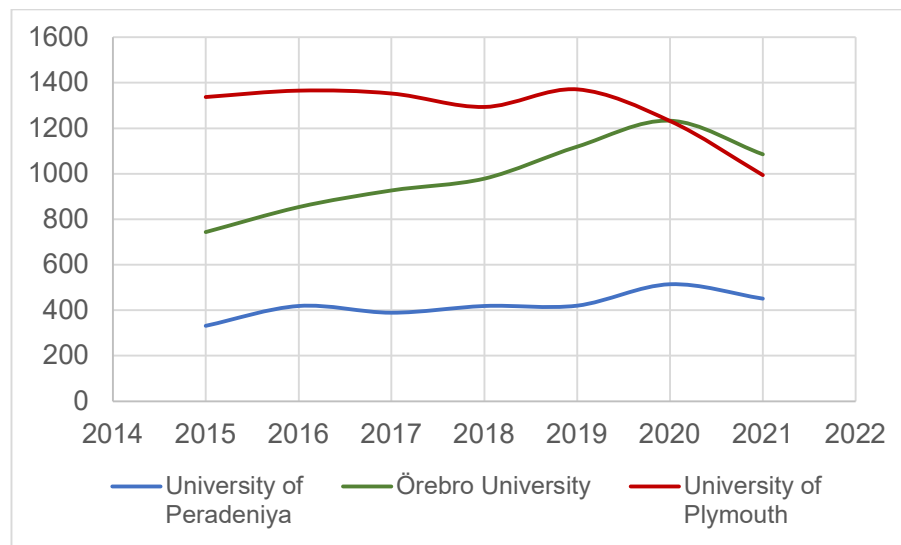
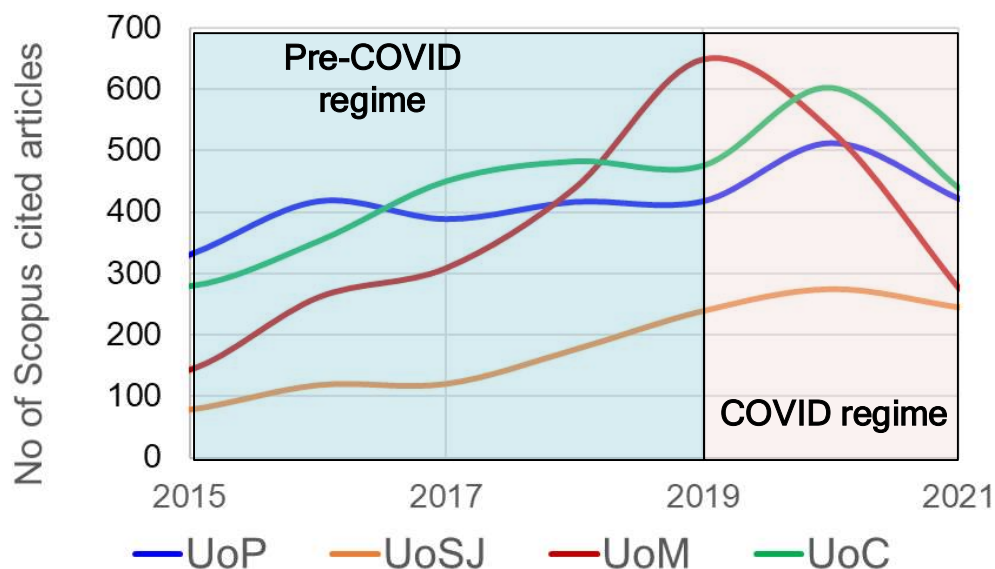


Figure 1: Comparison with adjacent universities in 400 – 500 cohort of THE Ranking

I also looked at how we did with respect to other universities in Sri Lanka. As one can see from Figure 2, we are slightly below the University of Colombo in terms of the number of papers. Further, the rate of papers by the University of Moratuwa during the pre-COVID period is much higher than ours. There is a clear impact of COVID on research outputs, but we seem to be stable compared to other universities. This information will help us think about how much effort we should put to enhance our research outputs to improve our rankings and retain our place in Sri Lanka.



In the journey of increasing our outputs, we need to see where we are lacking, and we should devise mechanisms to enhance outputs in those areas. For example, the following table shows the papers published in different disciplines. As can be seen, Medicine (14.7%), Agricultural and Biological Sciences (13.3%), and Engineering (11.5%) are dominating, whereas, in this particular database, we lack papers in some areas.

Medicine	1710	Dentistry	233
Agricultural and Biological Sciences	1547	Energy	230
Engineering	1147	Mathematics	207
Environmental Science	793	Chemical Engineering	195
Biochemistry and Molecular Biology	772	Veterinary	192
Computer Science	675	Arts and Humanities	146
Chemistry	508	Decision Sciences	137
Social Sciences	488	Economics & Finance	110
Material science	407	Business, Management and Account.	100
Immunology and Microbiology	389	Nursing	95
Multidisciplinary	384	Psychology	55
Earth and Planetary Sciences	373	Neuroscience	49
Physics and Astronomy	371	Health Professions	28
Pharmacology, Toxicology	266	Undefined	7

Concluding analysis:

The research indicator presents the greatest opportunity for ranking improvement for University of Peradeniya. Turning our weakness to advantage through a university-wide initiative to promote research activities and incentivize staff to engage in high-level multi-disciplinary research is a must. The three metrics under research are interlinked.

High-level international grants, high impact indexed journal publications, and research reputation among international peers create a positive feedback loop that feeds off each other.

Prof. J.B. Ekanayake (BSc, PhD, FIEEE, FIET, FIESL, CEng)
Professor of Electrical and Electronic Engineering