



FACULTY OF SCIENCE
EASTERN UNIVERSITY, SRI LANKA

2025

Newsletter a biannual publication

FOS NEWS

Volume 5: Issue 2

MATHEMATICS

$$\int \sin x \, dx = -\cos x + C$$

$$\int x^2 \, dx = \frac{x^3}{3} + C$$

$$A = \pi r^2$$



CHEMISTRY



PHYSICS



COMPUTER SCIENCE



BOTANY



ZOOLOGY



$$\int_a^b f(x) \, dx$$

$$y = mx + c$$

$$E = mc^2 \quad \sum_{i=1}^n i = \frac{n(n+1)}{2}$$

EASTERN UNIVERSITY, SRI LANKA





In this issue ...

- Faculty profile
- Awards
- Appointments
- Staff research and Publications
- ARS- 2025
- Faculty Day
- Meetings, Workshops and Invited talks

Vision

Faculty of Science, Eastern University, Sri Lanka, aims to be a national centre of Excellence for higher learning and research with the competitive advantage, responsive to the dynamics of the regional, National and Global conditions.

Mission

Faculty of Science is to be a National Centre for Excellence in teaching and research. Our teaching and researches are geared to regional and national needs. Batticaloa District has ample of human and natural resources. Curriculum is geared to education and training suited to modern needs of the globe, thereby enhancing the socio-economic development of the region and people. The faculty is committed to work for this goal.



Faculty Profile

Student Number (Studying in 2025)

The following table presents the number of students currently enrolled in both Bio Science and Physical Science streams.

Year	Bio Science			Physical Science			Total
	Male	Female	Total	Male	Female	Total	
Year 1 (23/24)	17	62	79	58	77	135	214
Year 1 (22/23)	10	69	79	66	81	147	226
Year 2 (21/22)	19	54	73	54	50	104	177
Year 3 (20/21)	21	41	62	53	66	118	180
Honours	02	47	49	20	36	56	105
Total	69	273	342	251	310	561	903

Academic Strength (2025)

The academic staff for the year 2025 comprises a dedicated and qualified team across six key departments: Botany, Chemistry, Zoology, Mathematics, Physics, and Computing. Their collective expertise ensures the delivery of high-quality education and the advancement of research within their respective fields.

Status	Department						Total
	Bot.	Che.	Zoo.	Math.	Phys.	Comp.	
Emeritus Professor	1	-	-	-	-	-	01
Senior Professor	-	-	1	2	1	-	04
Professor	2	3	1	1	2	-	09
Associate Professor	-	-	-	-	1	-	01
Senior Grade (I)	2	1	1	4	-	1	09
Senior Grade (II)	-	2	3	1	-	1	07
Lecturer	-	-	-	-	-	-	-
Probationary	3	1	1	-	3	1	09
Total	08	07	07	08	07	03	40

Degree/ Diploma programmes offered

The Faculty offers a diverse range of academic programmes designed to meet the evolving needs of students and the broader scientific community. These programmes are structured to provide strong theoretical foundations, practical skills, and research opportunities that prepare graduates for academic, professional, and industrial careers.

➤ Undergraduate Programmes

✓ BSc (General)

A three-year programme providing broad knowledge in science disciplines, ideal for students seeking foundational scientific education with flexibility in subject choices.

✓ BSc (Honours)

Specialized four-year degree programmes that offer in-depth knowledge and advanced training in specific disciplines:

- Botany
- Chemistry
- Computer Science
- Mathematics
- Physics
- Zoology

These programmes are research-oriented and prepare students for postgraduate studies or specialized career paths.

➤ Postgraduate Programmes

✓ Master of Science (MSc)

- Science Education - designed for educators aiming to deepen their understanding of science teaching and learning methodologies.
- Environmental Sciences - focuses on interdisciplinary approaches to address environmental issues through scientific knowledge and innovation.

✓ **Master of Philosophy (MPhil)**

A research-based degree that allows students to engage in independent scientific investigation under expert supervision.

✓ **Doctor of Philosophy (PhD)**

The highest academic qualification offered, focusing on original research contributing to new knowledge in a chosen field of science.

➤ **Diploma Programmes**

✓ **Diploma in Laboratory Technology (DLT)**

Provides hands-on training in modern laboratory practices and techniques, essential for careers in scientific laboratories and research institutions.

✓ **Diploma in Information and Communication Technology (DICT)**

Equips students with practical ICT skills for professional roles in technology, education, and data-driven sectors.

Faculty Publications

The Faculty actively promotes academic communication and knowledge sharing through a variety of publications. These include peer-reviewed journals, student-led annuals, and regular newsletters that highlight faculty activities, research achievements, and student engagement.

➤ **Journal of Science (JSc)**

A double-blind, refereed academic journal published by the faculty. It serves as a platform for publishing original research articles, reviews, and scientific discussions across a wide range of disciplines. The journal maintains rigorous academic standards and promotes interdisciplinary collaboration.

➤ **Blossom**

An annual publication curated and compiled by the Faculty Students' Union. It features student articles, creative writing, artwork, event highlights, and reflections on campus life, encouraging self-expression and student engagement within the academic community.

➤ **FOSnews Newsletter**

A biannual newsletter published by the faculty. It includes updates on faculty events, research highlights, academic achievements, workshops, outreach programs, and more, keeping both staff and students informed and connected.

Conference

➤ **Annual Research Session (ARS)**

The Annual Research Session (ARS) is the premier academic conference organized by the Faculty, providing a platform for faculty members, researchers, and students to present their research findings and scholarly work.

It encourages knowledge exchange, interdisciplinary collaboration, and academic dialogue across the sciences. The event features oral and poster presentations, keynote addresses by eminent researchers, and promotes a culture of research excellence within the academic community.

Awards

Meritorious Service Award

Senior Professor P. Vinobaba was honored with a Meritorious Service Award for 40 years of service rendered to the university at a Meritorious Service Awards ceremony held at Eastern University.



Senior Professor P. Vinobaba is a distinguished Sri Lankan academic specializing in zoology, aquaculture, and aquatic parasitology. He obtained his B.Sc. (Hons) in Special Zoology from the University of Jaffna and his PhD from the University of Stirling, United Kingdom, focusing on fish diseases and aquatic pathology. He received a Commonwealth Scholarship (1991) and Commonwealth Fellowship (2004), through which he conducted advanced research in molecular disease diagnostics, fish breeding, and environmental management. A Chartered Biologist (UK), he has published extensively, with 113 refereed abstracts and 77 full research papers in recognized journals.

He joined as an academic in 1985 and progressed from Assistant Lecturer to Senior Professor in the Department of Zoology. Throughout his career, he has made significant contributions to teaching, research, and national development, particularly in fisheries and environmental conservation. He has held several key administrative roles, including Dean of the Faculty of Science, Head of the Department of Zoology, Acting Head of the Department of Chemistry, Director of the Staff Development Centre, Director of the Internal Quality Assurance Unit (now Centre for Quality Assurance), Senior Student Counselor, and University Proctor. Recognized with numerous national and international awards, he continues to play a vital role in advancing higher education and sustainable aquatic resource management in Sri Lanka.

Award for Excellence in Research and Innovation for Driving Global Impact -2024



Senior Prof. A. G. Johnpillai was honoured at the General Convocation - 2025, 4th October, 2025, Eastern University, Sri Lanka, by an award for the best global impact on research and innovation carried out over the period 2018 - 2022.

Vice-Chancellor's Award on Output-Based Research - 2024



Senior Prof. A. G. Johnpillai received the award based on the research publications in indexed journals achieved in 2022 at the felicitation ceremony which was held on 29th October, 2025 at Eastern University, Sri Lanka.

Vice-Chancellor's Award on Output-Based Research - 2023

Prof. T. Mathiventhan received the award based on the research publications in indexed journals achieved in 2023 at the felicitation ceremony which was held on 29th October, 2025 at Eastern University, Sri Lanka.



Proctor Coomarasamy Prize (2022) - Observational Research

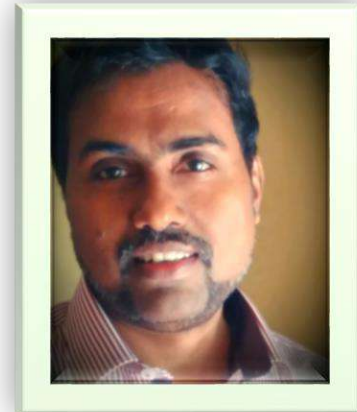


Prof. T. Mathiventhan

Vice Chancellor's Award for Output Based Research- 2024



Senior Prof. S. Thirukkanesh



Prof. M. Sithambaresan



Prof. P. Elango



Prof. M. Koneswaran



Mrs. T. Pio Jude Navinthan

Appointments



Prof. T. Mathiventhan

- Focal Point, ERASMUS+ programme, EUSL
- Faculty Focal Point, Action Plan
- Coordinator, Faculty Quality Assurance Cell
- Coordinator, Developing new degree programme - BSc Honours in Biology

Staff research and Publications

Department of Botany

- Mahendranathan C., Jonathan, F. T., & Kirushananth, N. (2025). Mushrooms as biocontrol agents: Alternate to chemicals. In Y. K. Mohanta, J. Panda, P. C. Nath, & H. Thatoi (Eds.), *Mushrooms in sustainable development: An industry and environment paradigm*. CRC Press, Taylor & Francis Group.
- Krishanthiny R., Caldera H.I.U., Mathiventhan T., Ariyawansa K.G.S.U. (2025). Variation in chlorophyll content of selected mangroves from diverse salinity environment in the east coast of Sri Lanka. 29th International Forestry and Environment Symposium, 17-18 January, 2025, University of Jayawardenapura, Sri Lanka.
- Mathiventhan T (2025). Efficient use and management of mangroves for its sustainable existence: Lesson learnt from North and Eastern provinces of Sri Lanka. First International Research Conference on the prospects of integrated development of the North and East of Sri Lanka. The Federation of Global Tamils, October 12, 2025, Canada.
- Thushanthan K., Mathiventhan T., Caldera H.I.U., & Ariyawansa K.G.S.U. (2025). Plant growth-promoting potential of endophytic fungi (PGPEF) isolated from *Avicennia marina* in enhancing growth parameters of chili plants. Annual Research Symposium 2025, University of Colombo.
- Krishanthiny R., Caldera H.I.U., Mathiventhan T., & K.G.S.U.Ariyawansa (2025). Adaptive responses of stomatal characteristics of mangroves to diverse salinity levels. Annual Research Symposium 2025, University of Colombo.

Department of Computing

- Dhawale, S. S., Ponnusamy, R., Kumaresan, P. K., Thavareesan, S., Rajiakodi, S., & Chakravarthi, B. R. (2025). RACHNA: Racial hoax code mixed Hindi-English with novel language augmentation. *Natural Language Processing Journal*, 100183.
- Chakravarthi, B. R., Kumaresan, P. K., Dhawale, S., Rajiakodi, S., Thavareesan, S., Navaneethakrishnan, S. C., & Durairaj, T. (2025, September). Overview of the shared task on detecting racial hoaxes in code-mixed hindi-english social media data. In *Proceedings of the 5th Conference on Language, Data and Knowledge: Fifth Workshop on Language Technology for Equality, Diversity, Inclusion* (pp. 222-228).

Department of Mathematics

- G. D. N. Hemakumari, A. G. Johnpillai, Integrability of a nonlinear third-order ordinary differential equation via differential invariants, *Proceedings of ARS-FOS-2025, Eastern University, Sri Lanka*, P 20, 2025.
- W. M. S. R. Manipura, A. G. Johnpillai, Exact solution of a scalar second-order ordinary differential equation possessing linearizing properties, *Proceedings of ARS-FOS-2025, Eastern University, Sri Lanka*, P 15, 2025.
- P. Paramadevan, A scientific method for allocating delivery agents to the clients in various known locations within a city, *Proceedings of International Conference on Computational Mathematics in the Era of Data Science and Artificial Intelligence, Dayananda Sagar College of Engineering, Bengaluru, India, February 22, 2025.*
- P. Paramadevan, W. B. Daundasekera, An optimization model for non-pharmaceutical intervention to control the outbreak of COVID-19 epidemic in Sri Lanka, *Proceedings of ICMME 2025, PGIS, University of Peradeniya, Sri Lanka, July 5, 2025.*

- P. Paramadevan, Optimizing exam scheduling time using assembly line balancing technique, Proceedings of ARS-FOS-2025, Faculty of Science, Eastern University, Sri Lanka, October 30, 2025.
- P. Paramadevan, W. B. Daundasekera, An optimization model to reduce the human fatalities in Sri Lanka due to COVID-19 considering different non-pharmaceutical intervention plans, Proceedings of IRC OUSL 2025, Open University of Sri Lanka, November 14, 2025.
- P. Paramadevan, W. B. Daundasekera, Implementation of non-pharmaceutical interventions to minimize the infection during the outbreak of COVID-19 epidemic in Sri Lanka, Proceedings of PGIS RESCON 2025, PGIS, University of Peradeniya, Sri Lanka, November 8, 2025.
- Jude, T. P., Panchadcharam, E., & Koneswaran, M. (2025). M-polynomial and topological indices for antiretroviral drugs against HIV infection. *Ceylon Journal of Science*, 54(3).

Annual Research Session, Faculty of Science 2025 (ARS-FOS-2025)

The Annual Research Session 2025 of the Faculty of Science (ARS-FOS-2025) was held on 15th October 2025 under the theme "Empowering Society Through Scientific Research and Innovation." The event focused on research tracks dedicated to Biological Sciences, Chemical Sciences, Environmental Sciences, Computer Science, Physical Sciences, and Technology and Innovation.

The Annual Research Session was further enriched by the keynote address delivered by Dr. M. C. M. Iqbal, Associate Research Professor at the National Institute of Fundamental Studies, Sri Lanka. His presentation offered participants an excellent opportunity to gain fresh perspectives and valuable insights into recent advancements in scientific research.

ARS-FOS-2025 provided opportunities for undergraduates and academics to disseminate their research findings, particularly those addressing community-related challenges through innovative scientific knowledge and approaches.

Committee

Chairperson: Prof. S. Arasaretnam

Department of Chemistry, Faculty of Science, Eastern University, Sri Lanka

Secretary: Dr. R. M. T. B. Ranathunge

Department of Zoology, Faculty of Science, Eastern University, Sri Lanka

Editor-in-Chief: Dr. (Mrs.) B. S. W. Karunarathna

Department of Chemistry, Faculty of Science, Eastern University, Sri Lanka

Co-Editors:

Snr Prof. P. Vinobaba

Department of Zoology, Faculty of Science, Eastern University, Sri Lanka

Snr Prof. A. G. Johnpillai

Department of Mathematics, Faculty of Science, Eastern University, Sri Lanka

Prof. P. Peratheepan

Department of Physics, Faculty of Science, Eastern University, Sri Lanka

Prof. M. Sithambaresan

Department of Chemistry, Faculty of Science, Eastern University, Sri Lanka

Prof. T. Mathiventhan

Department of Botany, Faculty of Science, Eastern University, Sri Lanka

Mr. S. Sotheeswaran

Department of Computing, Faculty of Science, Eastern University, Sri Lanka





Faculty Day 2025

Faculty of Science, Eastern University was established on 1st October, 1986 by a University Order dated 26 September 1986. Faculty Day is a cherished tradition of Faculty of Science that was successfully commemorated its 39th anniversary on 1st October, 2025.

The chief guest, The Vice Chancellor, Prof. P. Peratheepan and Deputy Vice Chancellor, Senior Professor, F.C. Ragel, Deans of faculties, Heads of Departments and all academic and non- academic staffs were welcomed along with cultural band performances of Department of Fine Arts, Eastern University and combined welcome dance of Tamil and Sinhala cultures.

The event was inaugurated with lighting of traditional oil lamp by The Vice Chancellor, Prof. P. Peratheepan and followed by welcome address by Dean/ Science and address by The Vice- Chancellor, EUSL. With the short notice, students in 2023/2024 batch performed excellent programs including group and solo song, welcome dance, group dances and speech that entertained us and highly appreciated by the audience.

Organizing Committee

Coordinator: Mrs. N. Vijitharan/ Department of Zoology, Faculty of Science

Committee members

Prof. T. Mathiventan/ Department of Botany, Faculty of Science

Dr. S. Sathaanathan/ Department of Mathematics, Faculty of Science

Mr. G. Parthiban/ Department of Chemistry, Faculty of Science

Mrs. S. Thavareesan/ Department of Computing, Faculty of

Mrs. D.P. Ubeysekara/ Department of Physics, Faculty of Science

Mr. S. Thanusanth/ Department of Zoology, Faculty of Science









Leadership Development Event for First Year Students – 13 July 2025

As part of the Orientation Programme for incoming first-year students, the Faculty organized a Leadership Development Event on 13 July 2025, aimed at fostering teamwork, communication, and leadership skills. The programme helped students embark on their university journey with confidence and a strong sense of community.

Staff members played a vital role in the success of the event by facilitating activities, guiding student groups, and coordinating logistics. Their presence contributed not only to the smooth execution of the programme but also to creating a warm, welcoming, and supportive atmosphere for the new students.



Meetings, Workshops and Invited talks

Awareness Programme on Answering Methodologies for GCE (A/L) Examination - Programme 01

The Community Outreach Science Unit (COSU) successfully conducted the first Awareness Programme on Answering Methodologies for the GCE (A/L) Examination on 8th July 2025, from 8:00 a.m. to 3:00 p.m., simultaneously at the following two schools:

1. T/Sri Sammuga Hindu Ladies College, Trincomalee
2. T/R.K.M. Sri Koneswara Hindu College, Trincomalee

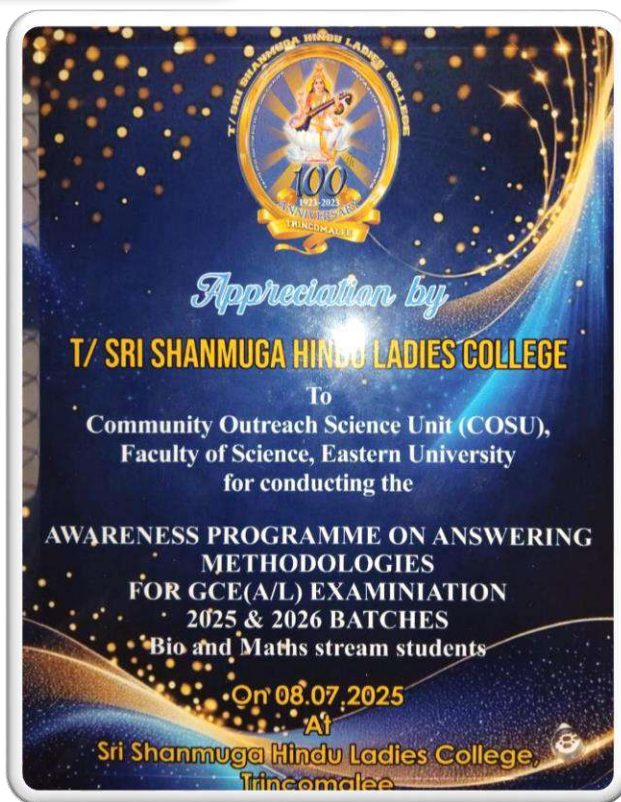
The main objective of these sessions was to raise awareness among students about effective answering techniques for GCE (A/L) Science Stream subjects, as well as to highlight common mistakes made by students when responding to examination questions. The sessions were conducted with reference to the marking schemes of the respective science subjects.

The sessions were conducted by the following esteemed resource persons:

- Physics - Prof. M. Thanishaichelvan, Department of Physics, University of Jaffna
- Chemistry - Prof. M. Sithamparesan, Department of Chemistry, Eastern University, Sri Lanka
- Biology - Dr. A.J.M. Harris, Department of Zoology, Eastern University, Sri Lanka
- Combined Mathematics - Prof. P. Elango, Department of Mathematics, Eastern University, Sri Lanka

Students from both the 2025 and 2026 GCE (A/L) batches participated in the programme. The subject teachers from the respective schools played a key role in coordinating the sessions.

This programme was jointly organized by COSU, and the School Development Societies of both schools.



Awareness Programme on Answering Methodologies for GCE (A/L) Examination - Programme 02

The Community Outreach Science Unit (COSU) successfully conducted the second Awareness Programme on Answering Methodologies for the GCE (A/L) Examination on 10th September 2025, from 8:30 a.m. to 1:30 p.m. at the BT/KK/Chenkalady Central College, Chenkalady.

Students from the following nine schools attended this awareness session:

1. BT/KK/Chenkalady Central College
2. BT/KK/Vantharumoolai Mathya Maha Vidyalaya
3. BT/KK/Vantharumoolai Vishnu Maha Vidyalaya
4. BT/KK/Valaichenai Hindu College
5. BT/KK/Pethalai Vipulananda College
6. BT/KK/Karuvakerney Vikneswar College
7. BT/KK/Kiran Cental College
8. BT/KK/Santhively Sithy Vinayar Vidyalaya
9. BT/KK/Kathiravelly Vikneswara Vidyalaya

The main objective of this sessions was to raise awareness among students about effective answering techniques for GCE (A/L) Subjects Biology and Chemistry, as well as to highlight common mistakes made by students when responding to examination questions. The sessions were conducted with reference to the marking schemes of the respective science subjects.

The sessions were conducted by the following esteemed resource persons:

- Biology: 08.30 am to 11.30 am
Dr. A.J.M. Harris, Department of Zoology, Eastern University, Sri Lanka
- Chemistry: 12.00 noon to 01.30 pm
Prof. S. Arasaretnam, Department of Chemistry, Eastern University, Sri Lanka
Mr. G. Parthiban, Department of Chemistry, Eastern University, Sri Lanka

This programme was jointly organized by COSU, and the Kalkudah Zonal Education Office.



Plenary Speech

Present status and future strategic interventions for mangrove conservation. 3rd International Conference on Mangroves for Sustainability (ICMS), The Open University, Sri Lanka, 22-26 July 2025

Resource Person

Resource Person, ENACT Programme. "Internationalization in Higher Education: International Networks and Bilateral Agreement". SDC Programme, EUSL.



Prof. T. Mathiventhan

Prof. (Mrs.) C. Mahendranaathan participated an International Conference, titled "Science for a Sustainable Future: Innovation of Pure and Applied Research" as an Invited Speaker and delivered the talk on "Impact of Climate Change on Plant Diseases and its Productivity", held at Rani Durgavati University, Jabalpur, Bhopal, Madhya Pradesh, India, from 26.02.2026 to 28.02.2026.



Prof. (Mrs.) C. Mahendranaathan

The Eastern University, Sri Lanka (EUSL) was officially established on 1st October 1986 under a University Order dated 26th September 1986, pursuant to Section 2 of the Universities Act No.16 of 1978. It succeeded the Batticaloa University College, which was founded on 1st August 1981 to address the long-standing need for higher education in the Eastern Province.

The Faculty of Science, one of the two original faculties of Batticaloa University College, has been operational since 1981. It consists of six departments: Botany, Chemistry, Computing, Mathematics, Physics, and Zoology. The Botany and Zoology departments boast extensive collections of local and imported specimens housed in their Herbarium and Museum, enriching the teaching and learning experience. The Faculty offers a comprehensive range of subjects—including Botany, Chemistry, Mathematics, Computer Science, Physics, and Zoology—playing a vital role in advancing science education in the region.



Faculty of Science
Eastern University, Sri Lanka
E-mail: deanscience@esn.ac.lk
Web: www.esn.ac.lk

From the Editor's Desk

Welcome to Volume 5, Issue 2 of *FOSnews*, the biannual newsletter of the Faculty of Science.



Mrs S. Thavareesan
The Editor
FOSnews Newsletter

This edition highlights the dynamic academic environment of our Faculty, showcasing recent research developments, scholarly activities, and notable achievements of our staff and students.

Each issue aims to keep our community informed while fostering a sense of connection through the sharing of innovative work and collaborative initiatives across disciplines.

I would like to express my sincere appreciation to all faculty members who contributed their time, effort, and insights to make this publication possible. Your continued commitment plays a vital role in strengthening both the Faculty and this newsletter.