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UNIVERSITY OF VAVUNIYA, SRI LANKA

JANUARY - JUNE 2024

VOLUME - 01 ISSUE - 01

# NEWSLETTER

FACULTY OF APPLIED SCIENCE



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## ACKNOWLEDGEMENTS

The Dean of faculty, Heads of Departments, and all academic staff are greatly appreciated for providing information for this newsletter.

## DISCLAIMER

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## Message from the Vice Chancellor

It gives me great pleasure that Faculty of Applied Science, University of Vavuniya is publishing first newsletter for the period from January to June 2024. This newsletter provides the details of the activities of academic, sports, culture, research and community outreach activities. This marks the beginning of a new chapter in the collective journey of academic excellence and community building.



The faculty has always been a beacon of innovation, research, and teaching, and this newsletter will serve as a platform to showcase the incredible work being done by staff and students. It will provide insights into our latest research initiatives, celebrate faculty achievements, and keep us connected with important developments within the faculty and the wider university.

The launch of this newsletter comes at a pivotal time when the landscape of higher education is rapidly evolving. We are faced with both challenges and opportunities, and I am confident that faculty will continue to lead with resilience, creativity, and a commitment to excellence.

I encourage you all to actively contribute to this newsletter, sharing your stories, ideas, and successes. Together, we can build a vibrant community where knowledge and ideas flourish, and where everyone feels valued and inspired to achieve their best.

Thank you for your dedication and hard work. I look forward to the exciting times ahead as we embark on this journey together.

Prof. T. Mangaleswaran  
Vice Chancellor  
University of Vavuniya

## Message from the Dean of the Faculty

I am delighted to extend my wishes and congratulations on the launch of the first release of the newsletter (Volume I, Issue I) of the Faculty of Applied Science, University of Vavuniya. This is a significant milestone in the development of our faculty. The inaugural newsletter focuses primarily on our academic achievements, student accomplishments, cultural activities, community outreach programs, research, and innovation.

I believe that the Faculty of Applied Science's newsletter will showcase our faculty's excellence nationwide and foster a strong network within the university community. It will also raise awareness of our endeavors and achievements.

The launch of this newsletter is one of many successful ventures for the faculty, and I extend my heartfelt blessings for its continued growth and evolution, leaving an indelible mark on the minds and hearts of its readers. I appreciate the editor and team for their efforts in launching this valuable publication.

Dr. Jeyagowri Nimalan  
Dean, Faculty of Applied Science  
University of Vavuniya



## Message from the Head/ Department of Physical Science



It is my great pleasure to write a message for this edition of the Faculty of Applied Science newsletter. Department of Physical Science has been actively engaged in conducting various activities and events through our student societies. With a large and growing community of staff and students

we are excited about the prospect of forming even more student societies in the near future.

I have great confidence that, through our collective efforts, our department will continue to make significant contributions to both the university and the wider society. Collaboration and public support remain at the heart of our endeavours, and I am sure that these partnerships will only strengthen as we move forward.

This newsletter from our Faculty of Applied Science highlights some of the remarkable activities and achievements of our staff and students this year. I am confident that these stories will not only inspire future initiatives but also set the stage for even greater accomplishments in the issues to come.

Best regards,  
Dr. S. Kirushanth  
Head / Department of Physical Science

## Message from the Head/ Department of Bio-science



Dear Members of the Faculty of Applied Science Community, It is with great pride and enthusiasm that I address you in this edition of our newsletter, highlighting some of the remarkable achievements and initiatives undertaken by our department and the Faculty of Applied Science.

I extend my heartfelt gratitude to all members of our department, including faculty, staff, and students, for their unwavering dedication and hard work. Your contributions are what make our department a hub of excellence and innovation.

As we continue to grow and evolve, I am confident that the Faculty of Applied Science, with the combined efforts of both the Department of Bio-Science and the Department of Physical Science, will remain at the forefront of scientific discovery and education, making meaningful contributions to our community and beyond.

Thank you for your continued support, and I look forward to witnessing and celebrating our future successes together.

Dr. S. Wijeyamohan  
Head / Department of Bio-Science

## FACULTY OVERVIEW

The Faculty of Applied Science, University of Vavuniya as an academic organization has a flexible, friendly, and conducive internal environment that allows for effective teaching, learning, and research. Further, the Faculty has very strong ties with the community of Vavuniya and, it is seen as a key and prominent player in the advisory capacities of all development endeavors taking place in the locality. The faculty of Applied Science of the University of Vavuniya consists of two Departments, namely the Department of Physical Science and the Department of Bio-science. The degree programmes offered by the Faculty of Applied Science are:

1. Department of Bio-science

- **B.Sc. Honours in Environmental Science (4 years)**

2. Department of Physical Science

- **B.Sc. in Applied Mathematics and Computing (3 years)**
- **B.Sc. Honours in Computer Science (4 years)**
- **B.Sc. in Information Technology (3 years)**
- **B.Sc. Honours in Information Technology (4 years)**

### Vision

*To be the centre of excellence in the provision of technologically advanced and appropriate applied science education.*

### Mission

*To become the leader in advancing knowledge and skills in applied science and in evolving into a good academic-corporate citizen contributing to the sustainable development of the region and country.*



## ACADEMIC PROGRAMMES

### YOGURT PRODUCTION UNIT LAUNCH: PIONEERING EXCELLENCE

On April 26, 2024, a ceremonial opening of the yogurt production unit, established under the Business Incubation and Innovation Cell – Department of Bio-science (BIIC-DBS), was held. The event was inaugurated by the Vice-Chancellor, with the Dean of the Faculty, the Registrar of the University, and the Project & Activity Coordinators of the AHEAD Project. During the ceremony, the unit's first batch of milk yogurt and drinking yogurt was launched and provided to the invitees for sensory evaluation. This was one of the milestones of the Faculty of Applied Science.



### AWARENESS SESSION ON EXAMINATION

Mr. S. Thirukumaran, Senior Lecturer, Department of Physical Science, conducted an awareness session in virtual mode for first-year students of Applied Mathematics and Computing, and Information Technology degree programmes. The session was held on 17th January 2024, covering the Guidelines regarding the University Examinations. More than 100 students actively participated in the event.

### ENHANCING STAFF SKILLS: OUTBOUND TRAINING EXPERIENCE

From May 3rd to 5th, 2024, seven staff members from the Faculty of Applied Science participated in an Outbound Training Programme organized by the Staff Development Centre of the University of Vavuniya. The programme, was held at General Sir John Kotelawala Defense University (KDU), including visits to KDU's Faculties and Hospital in Ratmalana, as well as residential training at Sooriyawewa Campus. The training was designed to enhance both interpersonal skills, such as effective communication, team building, and interaction, and intrapersonal skills, including self-motivation, self-discipline, adaptability, and meal etiquette.



## RESEARCH AND INNOVATION

### COST-EFFECTIVE GUPPY PROPAGATION AT THE AQUACULTURE UNIT

A study was initiated in the aquaculture unit to explore the feasibility of propagating *Poecilia reticulata* (guppies) using low-cost formulated diets derived from locally available ingredients in the Aquaculture unit, University of Vavuniya premises. Additionally, this study aimed to develop the small-scale ornamental fish trade among rural communities in the Vavuniya district by developing and implementing cost-effective, locally formulated diets for *Poecilia reticulata*.



### MASTERING YOGURT PRODUCTION



The Department of Bio-science at the Faculty of Applied Science, University of Vavuniya, organized a two-day workshop on April 25th and 26th, 2024, focusing on the operational and maintenance procedures for yogurt production. The workshop aimed to provide comprehensive training to ensure the efficient functioning of the yogurt production unit within the Business Incubation and Innovation Cell - Department of

Bio-science. The event was attended by a diverse group, including academic staff from the Department of Bio-science, temporary academic staff, the Assistant Registrar of the Faculty, technical officers, field attendants, and students. Participants received thorough training on production processes, with a particular focus on operating, maintaining, and ensuring equipment safety.



## RESEARCH AND INNOVATION

### CULTIVATING SUSTAINABILITY: BLOOMING MUSHROOMS IN 2024

The mushroom production unit, funded by the ELTA-ELSE AHEAD project, was a key part of a sustainable bio-waste management initiative by the Department of Bio-science at the Faculty of Applied Science. This expanded mushroom cultivation promotes youth self-employment, sustainability, and efficient resource use. In January 2024, the production unit harvested approximately 15 kg of mushrooms, with expert guidance from Dr. (Ms.) J. Nimalan is a Senior Lecturer in the Department of Bio-science. Cultivating mushrooms highlights the nutritional benefits, as they are rich in protein, essential amino acids, and vitamins. This effort provided valuable hands-on practical experience for both staff and students and contributed to sustainable agricultural practices. Its success has led to increase demand among the staff of the University of Vavuniya, underscoring its popularity and impact due to its quality.



### SILAGE MAKING WITH CROP RESIDUES

Silage making is one of the self-employment ventures incorporated as a course module in the Environment and Agriculture course unit and introduced to the environmental science undergraduates at the Department of Bo-science in 2022. One of the fourth-year students researched “Silage making using crop residues” under the supervision of Prof. (Ms.) A. Nanthakumaran. The findings are useful for the livestock farmers and the livestock industry to earn their living and develop it in countries like Sri Lanka where the livestock industry has high potential.

Ingredients:





## RESEARCH AND INNOVATION

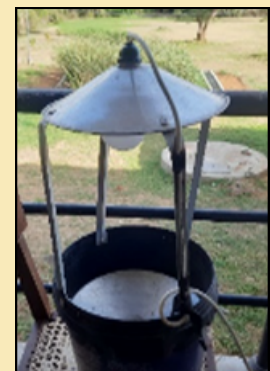
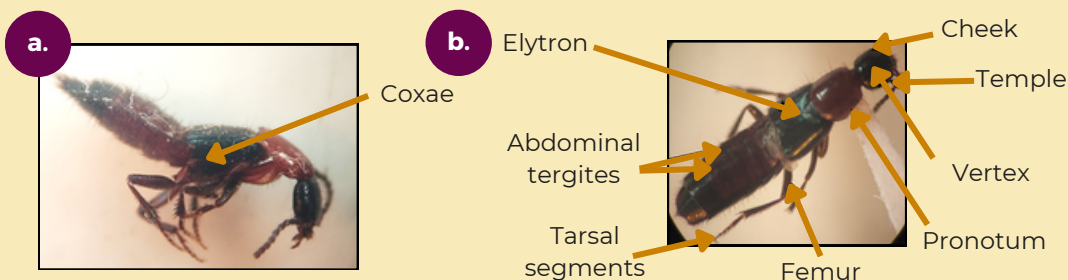
### RESEARCH COLLABORATIVE INITIATIVES

On May 30, 2024, Prof. S. Sivapalan from the University of Illinois, USA, and Prof. N. Sriskandarajah from the Swedish University of Agricultural Sciences in Uppsala, Sweden, visited the University of Vavuniya. Their visit included a discussion with the academic staff of the Department of Bio-science about potential future research collaborations focused on sustainable water resource management in the Northern Province of Sri Lanka.



### BATTLING ACID FLIES

A research on the “Occurrence of Acid fly (*Paederus sp.*) (Coleoptera:Staphylinidae: Paederinae) in Vavuniya Sri Lanka (A case study at the University hostel premises and its surroundings)” was carried out with the research grant (UOV/2022/UREC/RG/03) from the University of Vavuniya. The research identified the acid fly species as *Paederus fuscipes* and recommended the mitigation strategies to protect the students at the hostel premises from the risk of acid fly attack. This research was carried out by Prof. (Ms.) A. Nanthakumaran and Ms. Abarna Krishnakumar from the Department of Bio-science, Faculty of Applied Science, University of Vanuniya, in collaboration with Prof. (Ms.) R. Ganeswaran, Department of Zoology, Faculty of Science, University of Jaffna.



The lateral (a) and dorsal (b) views of the Adult *Paederus fuscipes*

## RESEARCH AND INNOVATION

### AWARD WINNING : HANGING ELECTRIC FENCE SYSTEM

Dr. S. Wijeyamohan, Senior Lecturer at the Department of Bio-Science, University of Vavuniya, has been honored with an innovation award for his exceptional achievement and groundbreaking innovation in developing the Hanging Electric Fence System, aimed at curbing wild elephant intrusion. This accolade was presented at the Innovation Arena 2024 of the Industry-Expo International Exhibition, which took place from June 9th to 23rd, 2024, at the BMICH.



### PUBLICATIONS IN INDEXED JOURNALS

- Fonseka, C., Ryu, S., Devaisy, S., Kandasamy, J., McLod, L., Ratnaweera, H., & Vigneswaran, S. (2024). Application of Low-Pressure Nanofiltration membranes NF90 and NTR-729HF for treating diverse wastewater streams for irrigation use. *Water*, 16(14), 1971. <https://doi.org/10.3390/w16141971>
- Yogeswaran, S., Kumareswaran, K., & Atapattu, N. (2024). A comparison of environmental performance of electronic and bound-thesis using life cycle assessment. *Journal of Cleaner Production*, 437, 140650. <https://doi.org/10.1016/j.jclepro.2024.140650>
- Vijitharan, S., Tsusaka, T. W., & Sasaki, N. (2024). Evaluating REDD+ Progress and Results-Based Incentives in Sri Lanka: A Comparative Analysis across Southeast and South Asian Countries. *Trees Forests and People*, 16, 100574. <https://doi.org/10.1016/j.tfp.2024.100574>
- Vijitharan, S. (2024). A Review on Traditional Knowledge: A Sustainable Solution for the Climate Crisis. In: Mukhopadhyay, U., Bhattacharya, S., Chouhan, P., Paul, S., Chowdhury, I.R., Chatterjee, U. (eds) *Climate Crisis, Social Responses and Sustainability*. Climate Change Management. Springer, Cham. [https://doi.org/10.1007/978-3-031-58261-5\\_10](https://doi.org/10.1007/978-3-031-58261-5_10)

## STUDENTS' ACTIVITIES

### REPRESENTING THE UNIVERSITY OF VAVUNIYA AT THE WORLD YOUTH FESTIVAL, 2024

Ms. Dilini Tharuka Mendis, a fourth-year undergraduate from the Department of Bio-science, attended the World Youth Festival 2024 in Sochi, Russia, representing the University of Vavuniya, the ZeroPlastic National Movement, and Sri Lanka. The event, held from March 1st to 11th in the Sirius Federal Territory in Russia for 10 days. This event was a pivotal moment for global youth engagement. The festival brought together 20,000 young leaders from diverse fields such as business, media, international cooperation, culture, science, education, volunteering, charity, sports, and various areas of public life. It was a remarkable opportunity to engage in a diverse exchange of ideas and perspectives.



### CELEBRATING WORLD ENVIRONMENT DAY

The Environmental Society (ENSOC) celebrated World Environment Day on 5 June 2024 with a week-long Environmental Talk Series from June 3 to June 8, 2024. Students explored environmental topics beyond their regular studies through daily presentations by specialists and engaging discussions, fostering a deeper understanding of environmental issues and a stronger commitment to conservation. Additionally, the Terra Nova - A Green Charge initiative raised awareness among school students in the Northern and Eastern provinces of Sri Lanka, with university volunteers ensuring its success.

## STUDENTS' ACTIVITIES

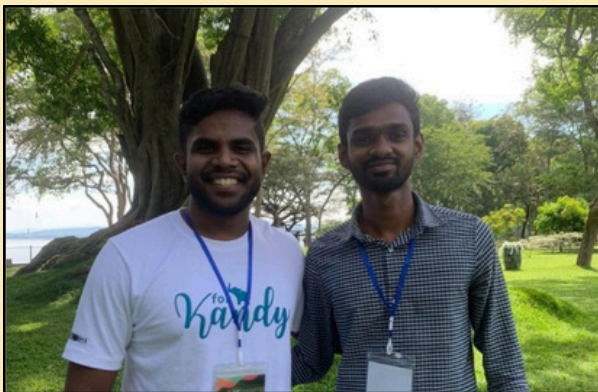
### HAWASAKA MA: UNITING THE UNIVERSITY THROUGH MUSIC

On April 3rd, the Faculty of Applied Science organized "Hawasaka Ma," a musical event that united students, faculty, and staff for an evening of celebration and camaraderie. Meticulously planned by students, the event showcased their organizational skills and creativity, transforming the university into a hub of cultural activity. "Hawasaka Ma" highlighted the rich musical talents within the university community, featuring a variety of genres, from soulful solo and group acts to lively band performances. The energetic musical evening kicked off with performances showcasing vocal and instrumental talents through renditions of classic and contemporary songs.



### NATCON 2024: YOUTH LEADERSHIP CONFERENCE

Mr. Hassim Mohamed Zeidh, a second-year student from the Department of Physical Science, Faculty of Applied Science, represented the University of Vavuniya at the prestigious NATCON 2024 youth leadership conference. Held from April 19th to 21st at Hotel Sudu Araliya in Polonnaruwa. This significant event was organized by AIESEC in Sri Lanka, focusing on leadership and personal development. NATCON 2024 brought together over 400 students from more than 20 universities across Sri Lanka, emphasizing diversity, leadership, networking, and skill-building.



## STUDENTS' ACTIVITIES

### FOOD FIESTA 2024: A CULINARY CELEBRATION OF TRADITION



Food Fiesta 2024 was organized by third-year students of the Department of Bio-science on March 6, 2024, under the guidance of Dr. S. Wijeyamohan. The festival featured traditional foods, fostering the exchange of culinary culture between various communities. As part of the Ecotourism Club initiative, the event was a grand success.



### RENDEZVOUS 2024: FRESHERS' WELCOME PARTY

On January 5th, 2024, the Faculty of Applied Science hosted "Rendezvous 2024," a welcome party for freshers. The Chief Guest, Prof. T. Mangaleswaran, Vice Chancellor's inspiring words set a positive tone for the new students. The event was further distinguished by the presence of Proctor, and Marshal of the University of Vavuniya. Guests of Honour included the Dean of the Faculty of Applied Science and heads of the Departments of Bio-science, and Physical Science.



## STUDENTS' ACTIVITIES

### FUTURE FUSION YOUTH CONFERENCE 2024

On June 22, 2024, students from the Department of Physical Science, Faculty of Applied Science, participated in the "Future Fusion Youth Conference 2024," organized by AIESEC in Sri Lanka. This conference, held at the SLIIT Kandy premises, bringing together a diverse group of young leaders and innovators.



### GOOGLE EXPLORECSR SUMMER SCHOOL ON MACHINE INTELLIGENCE (GESSOMI) 2024

GeSSoMI 2024, co-hosted by the University of Melbourne and the University of Jaffna, focused on Machine Learning, Deep Learning, Natural Language Processing, Cloud Computing, and Distributed Systems. Recognized by the Google exploreCSR Award for 2023/2024, GESSOMI featured sessions from distinguished speakers from Google, the University of Melbourne, and top Sri Lankan universities. This event was held from June 14th to 16th at the University of Jaffna, and included hands-on workshops by industry leaders from 99x and WSO2. Twenty-two students from the University of Vavuniya's Department of Physical Science participated, and gained valuable experience in machine intelligence.



## STUDENTS' ACTIVITIES

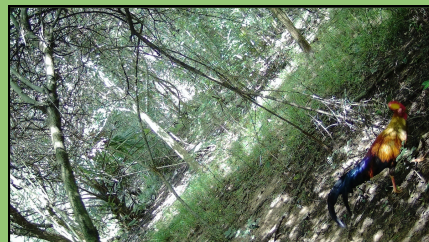
### CAPTURING WILDLIFE WITH CARE

World Wildlife Day (3rd of March), was celebrated by the Environmental Society (ENSOC) on March 13, 2024, by organizing a workshop focused on the ethical aspects of wildlife photography which was presented by a Level III student of the Department of Bio-science. Students with a keen interest in nature photography actively participated, with the intention of learning about the importance of responsible wildlife photography. This workshop provided valuable insights into ethical practices, emphasizing the need to align their passion for wildlife photography with conservation efforts.



### The forest patches of the University of Vavuniya

In times past, the faunal species, along with countless others, roamed freely across a more expansive territory before the development of our University. However, progress has come at a cost. The once-vast habitats that sustained these magnificent animals have gradually transformed into human settlements, encircling our academic institution. Today, only a handful of these creatures remain, seeking refuge within the sanctuary of our university forest. It must be ensured the continuity of these faunal species within our university's boundaries, safeguarding their futures and preserving the delicate balance of our natural world.



# S P O R T S

## FAS SPORTS WEEK: TALENT & TRIUMPH

The Faculty of Applied Science hosted an exhilarating Sports Week from May 1st to May 12th, 2024. The students from Levels 1, 2, and 3, took part with 25 different activities, ranging from athletics to indoor and outdoor sports. Each day was packed with energetic competitions, including track and field events, indoor games like chess and table tennis, and outdoor sports such as football and basketball were the key activities. The diverse activities allowed students to showcase their skills and enjoy friendly competition. The week concluded with a lively closing ceremony, celebrating participants' achievements. Sports Week 2024 was a fantastic display of talent and school spirit, uniting the student body and setting a high bar for future events.





## COMMUNITY OUTREACH PROGRAMMES

### SIPSAVIYA SEMINAR: EMPOWERING FUTURE SCHOLARS

The Students' Union of the Faculty of Applied Science of the University of Vavuniya hosted the "Sipsaviya Seminar" to support students who have limited educational opportunities. The seminar was held on March 30, 2024, at Agrabodhi Maha Vidyalaya and April 20, 2024, at Chandikulam Maha Vidyalaya, both schools were located in the Vavuniya district, the seminar targeted ordinary-level students, providing valuable insights into mathematics and science. With 300 students participating in both sessions, the seminar featured interactive sessions, practical demonstrations, and engaging discussions led by 70 university students. The events were inclusive, catering to both Sinhala and Tamil medium students. In addition to academic content, the seminars included entertainment and motivational activities, aiming to inspire students to overcome challenges and pursue their dreams.



## ACHIEVEMENTS

### BEST PAPER AWARD

Madhushani K.G.S and Bandara T.M.M.P.S. received the Best Paper award at the International Conference of Young Scientists Forum in Sri Lanka on January 26th, 2024. Their paper, "Effect of an Organic Fertilizer Derived from *Mimosa Pigra* on Mi 2 Chili Growth Parameters," highlights the benefits of using *Mimosa pigra*-based fertilizer to enhance chili plant growth and address ecological issues.

### BEST ORAL PRESENTATION AWARD

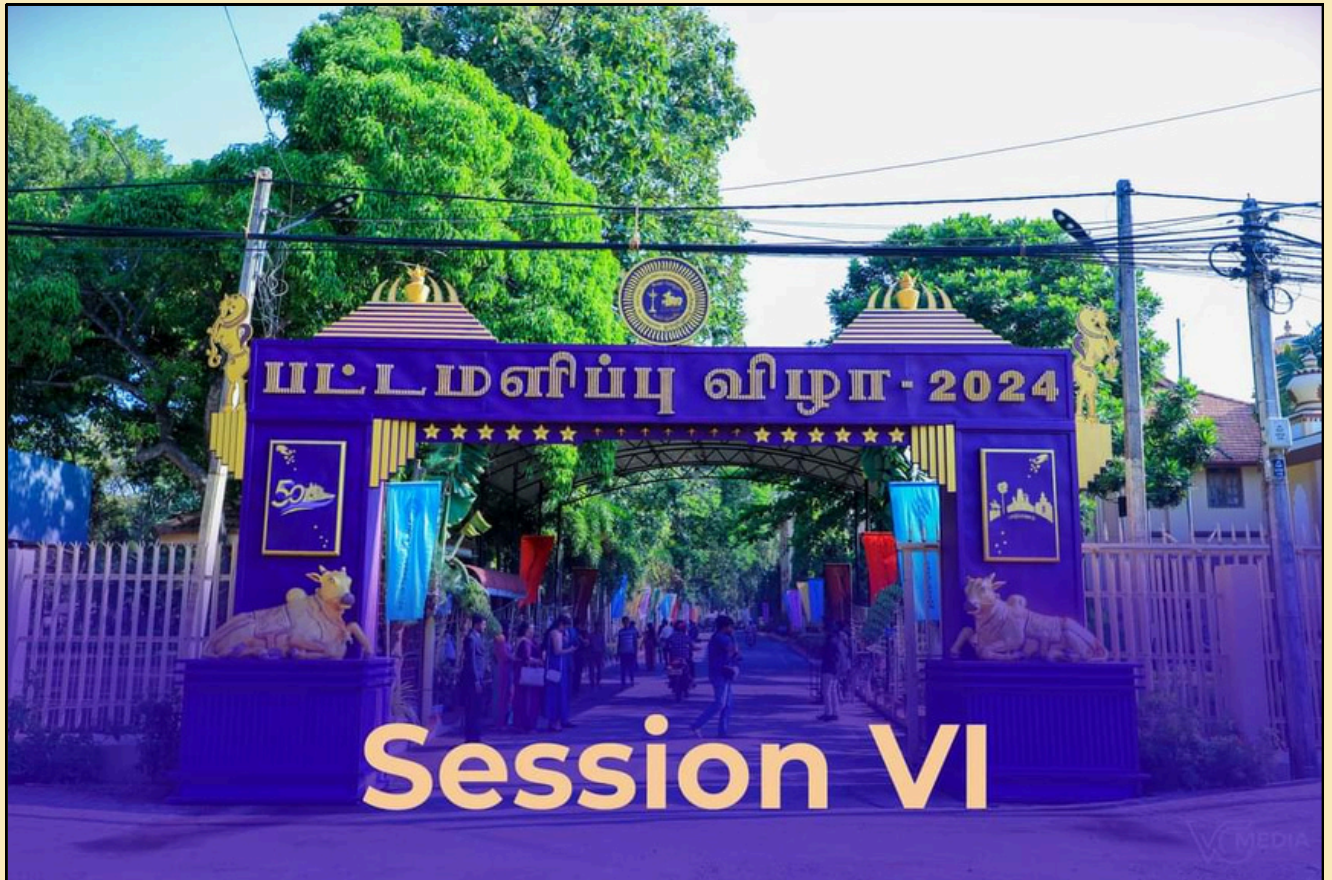


Ms. S. Yogasubanuja, Demonstrator of the Department of Bio-science, was awarded with best oral presentation at the 28th International Forestry and Environmental Symposium -2024 held on the 5th and 6th of January 2024 organized by the University of Sri Jayewardenepura, Sri Lanka.

### CAPTURE THE MOMENT: VANNI VOGUE'S BEST PHOTOGRAPHS CONTEST



# CONVOCATION - 2024



A total of 44 graduands from the Vavuniya Campus of the University of Jaffna, graduated at the 38th Convocation of the University of Jaffna awarded with the degree of B.Sc in Information Technology, B.Sc in Applied Mathematics and Computing and B.Sc in Environmental Science held from 13th to 16th March 2024 at Jaffna.



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"IN EVERY WALK WITH  
NATURE, ONE RECEIVES  
FAR MORE THAN HE  
SEEKS." — JOHN MUIR

Featured Species in the image:  
*Neurothemis tullia*

Photo Credits: T.Keerthanaram

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