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## From the Editor...

Welcome to FOSnews Newsletter,



It is with great pleasure to publish the FIRST volume of the newsletter of the Faculty of Science as well as the FIRST newsletter among the Faculties of the Eastern University, Sri Lanka. The FOSnews will be published every six months and will continue to be a vehicle to reconnoiter the activities of the Faculty of Science. As the first volume, we included whole events of the year 2016.

I would like to acknowledge the Dean/Science, Heads of the Department and dear colleagues, to give me fullest support polishing the first volume of FOSnews.

I hope that you will enjoy reading this issue. The Volume 2, Issue 1 will be published in June 2017.

Dr T Mathiventhan  
The Editor | FOSnews Newsletter.



**Faculty of Science** is one of the pioneer faculties established in 1981, under the Batticaloa University College.

### Vision

To be a National Centre of excellent for higher learning and research with the competitive advantage, responsive to the dynamics of the regional, national and global conditions.

### Mission

To be a National Centre for Excellent in teaching and research. Our teaching and research is geared to regional and national needs.

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## Faculty of Science at Glance ...

Student number (studying in 2016)							
Year	Bio Science			Physical Science			Total
	Male	Female	Total	Male	Female	Total	
Year 1 (2 <sup>nd</sup> Semester)	21	35	56	35	22	57	<b>113</b>
Year 2 (1 <sup>st</sup> Semester)	15	43	58	16	30	46	<b>104</b>
Year 3 (1 <sup>st</sup> Semester)	10	39	49	49	29	78	<b>127</b>
Year 3 (2 <sup>nd</sup> Semester)	27	37	64	38	17	57	<b>121</b>
<b>Total</b>	<b>73</b>	<b>154</b>	<b>227</b>	<b>138</b>	<b>98</b>	<b>238</b>	<b>465</b>
Special	11	17	28	09	10	19	<b>47</b>

Academic strength – Highest Qualification (2016)							
Status	Bot / Che / Zoo			Mathematics / Physics			Total
	Male	Female	Total	Male	Female	Total	
Professor	02	-	02	01	-	01	<b>03</b>
PhD	05	02	07	05	-	05	<b>12</b>
MPhil	02	02	04	01	04	05	<b>09</b>
MSc	01	01	02	01	-	01	<b>03</b>
Senior Gr (I)	04	03	07	05	-	05	<b>12</b>
Senior Gr (II)	03	01	04	02	04	06	<b>10</b>
Lecturer	-	-	-	01	-	01	<b>01</b>
Probationary	01	-	01	01	01	02	<b>03</b>
<b>Total</b>	<b>18</b>	<b>09</b>	<b>27</b>	<b>17</b>	<b>09</b>	<b>26</b>	<b>53</b>

### Degree programmes offered ...

BSc (General)

BSc (Special) – Botany, Chemistry, Computer Science, Mathematics, Physics and Zoology

Master of Science – Science Education, Environmental Sciences

Master of Philosophy (MPhil)

Doctor of Philosophy (PhD)

**Diploma:** Laboratory Technology (proposed)

### External Degree programme

BSc – Functioning under the Centre for External Degree and Extension Courses (CEDEC)

### Publications

- **Journal of Science (JSc)** – Double blind, refereed journal, ISSN: 1391-586x. The Journal will be published biannually (March and September), in printed and on-line versions (Open access).  
<http://www.fsc.esn.ac.lk/JSC/index.html>
- **Blossom** – An annual publication by the Faculty Students Union.

**Editor** | FOSnews Newsletter:  
**Dr T Mathiventhan**



## Major Events....

### Our Faculty member appointed as the Vice-Chancellor of EUSL...

Dr T Jayasingam, Professor of Botany, Faculty of Science was appointed as the 8<sup>th</sup> Vice Chancellor from January 2016.

A ceremonial induction (First time in the history of the Eastern University) was held on 29 January, 2016 led by Prof Umarani Coomaraswamy, the former Competent Authority.



Our heartiest wishes for the Vice-Chancellor for his successful endeavor...

### Faculty proves its competency at National level...

#### President's Award 2016

Four academics from Faculty of Science received President's Awards for Scientific Publication at a ceremony held on 22<sup>nd</sup> November 2016 at Waters Edge, Battaramulla. This year, 232 Sri Lankan scientists with a Sri Lankan Institutional affiliation received awards for their research published in 2014.

The award winners from the Faculty of Science and from the Eastern University are Prof S Thirukkanesh (Mathematics), Dr F C Ragel and Dr P Peratheepan (Physics) and Dr M Sithambaresan (Chemistry).



### Faculty is enhancing the quality of the academics...

#### Exposure visit to Asian Institute of Technology, Thailand

Eastern University organized a Training/Exposure visit for academics from 17 – 24 October 2016. The aim of the visit: To provide an avenue for academics to enhance their capacity through best practices, modern trend in teaching-learning methods, academic research activities, education, administration and management, industrial linkages and student counseling.

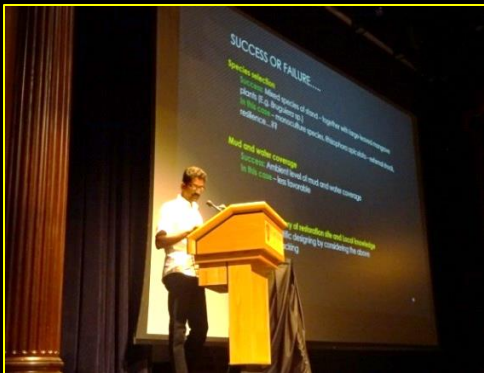
Senior lecturers, Mrs Umaramani Mathiventhan (Botany), Mr G Partheepan (Chemistry), Mr P Paramadevan and Mrs Shiventhiradevi Sathanathan (Mathematics), were represented from the Faculty of Science.



## Academics explore their findings at the International and National forum...

Dr T Mathiventhan, Senior lecturer in Botany attended an International conference on *Mangrove & Macrobenthos Meeting 4 (MMM4)* held at St Augustine, Florida, USA during 18 – 22, July 2016.

He presented a paper, titled "Present status of mangrove restoration in Batticaloa district: Is it success?"



Dr (Mrs) C Mahendranathan, Senior lecturer in Botany, delivered an invited talk at the *International Conference on Plant Research and Resource Management and 25<sup>th</sup> APSI Silver Jubilee Scientists Meet 2016*, held at Tuljaram Chaturchand College, Savitribai Phule Pune University, India, during 11-13 February, 2016.

She presented a paper, titled, "Alteration of Stem End Rot disease of local mango (*Mangifera indica*) cultivars through postharvest handling practices"



Dr. S Arasaretnam, Senior Lecturer in Chemistry went to India under the Research Training Fellowship from 15 July, 2015 to 10 January, 2016. He worked on a research titled "Modification of Extracted Tannin from *Pinus radiata* Bark for Formaldehyde based Resin and Processable Thermoplastics" under the supervision of Dr. A. V. Sesha Sainath.

The fellowship was sponsored by the Center for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre) at the CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad, India for Developing Country Scientists (RTF-DCS).

Dr (Mrs) C Mahendranathan, Senior lecturer in Botany attended an International conference on *Australasian Soil-borne Symposium* held in Lincoln University, New Zealand during 14 – 17 November, 2016.

She presented a paper, titled "Enhancement of natural resistance of *Capsicum annum* L. against anthracnose, through selected postharvest treatments."



Dr. P. Vinobaba, Professor in Zoology and Mr S Kishoran, Department of Zoology attended an *International Conference on Bird, Biodiversity and Tourism (ICBBT, 2016)* held at Kingsbury Hotel, Colombo during 14-15 November, 2016. They presented a paper, titled "Bird diversity and threaten to their habitat in Sathurukondan birding in Batticaloa."





## Promotion of Staff...

Dr T Jayasingam, Senior lecturer in Botany is promoted to **Professor of Botany** with effect from 23.07.2016.

Dr S Thirukkanesh, Senior lecturer in Mathematics is promoted to **Professor in Mathematics** with effect from 28 December, 2015.



Prof. T Jayasingam



Prof. S Thirukkanesh

## Appointments...



Dr P Elango has been appointed as Senior Lecturer (Gr I), Department of Mathematics.

Dr.(Mrs.) C. Mahendranthan, Senior Lecturer in Botany, has been appointed as the Director for the "Centre for External Degrees and Extension Courses (CEDEC)", EUSL.

Dr.(Mrs.) C. Mahendranthan, Senior Lecturer in Botany, has become the member of the "Sri Lanka Commonwealth Alumni Association"



## Awards...

### Our staff received awards at various forums...

J. M Harris, Lecturer (Prob), Department of Zoology received

1. **Coomaraswamy prize for observational research 2016** at the Convocation 2016, Eastern University.
2. Best Portfolio report **and** best Presenter at the Staff Development Research Forum, Staff Development Programme held at the University of Kelaniya



Dr P Peratheepan, Senior lecturer in Physics received **Dr Sabaratnam prize for interventional research 2016** at the Convocation 2016, Eastern University.



## Collaborative Researches...

### Faculty involves research collaboration Internationally and Nationally ...

- **Norwegian University of Life Sciences, Norway:** Master's degree student Ms Maja Naemi Jonnson from the Department of International Environment and Development Studies, Norwegian University of Life sciences, did her thesis on "Socio-ecological resilience in mangrove forests and adjacent communities in Batticaloa" (September-December, 2016). Her Field Supervisor: Dr T Mathiventhan, Department of Botany.
- **Forest Department, Institute of Fundamental Studies (IFS), Coast Conservation Department (CCD), Department of Wildlife and Conservation (DWLC):** Prof T Jayasingam and Dr T Mathiventhan (Dept. of Botany), Prof Sril Wijesundara (IFS) and the other relevant departments are jointly involving in a thematic survey, titled "Vegetation survey of Eastern and Northern Provinces". It runs for a period of TWO years. Eastern University, Sri Lanka (EUSL) is financially supporting this project (2016-2018).
- **Bharathidasan University, Tiruchirappalli, Tamil Nadu, India:** Dr A G Johnpillai, Dept. of Mathematics had collaborative work with Prof. M. Lakshmanan, Centre for Non-linear dynamics (July 2016).

## Research Publication (Refereed journal, Conference proceedings) ...

### Biology / Botany / Zoology

1. **Harris J M**, Ranil K Kularatne, Ellawala K Champkhika, **Vinobaba P** (2016). Spatial and temporal distribution of cyanobacteria in Batticaloa Lagoon. *Journal of Environment*, Elsevier Publishing Ltd, UK. <http://dx.doi.org/10.1016/j.jes.2016.01.020>
2. **Harris J M, Vinobaba P** (2016). Interpolation mapping of seasonal variation of water quality of Batticaloa Lagoon, Sri Lanka. (Abs). Book of abstracts, National conference on Geospatial Sciences and Disaster Management, Colombo. Organized by Institute of Human Resource Advancement, University of Colombo. p 21.
3. **Harris J M, S Kishoran, P Vinobaba, M Vinobaba** (2016). Bird diversity and threaten to their habitat in Sathurukondan birding in Batticaloa. *International Conference on Bird, Biodiversity and Tourism* Colombo. 14th & 15th November, 2016. Organized by International Institute of Knowledge and Management. pp 09
4. Madhura J, Arulnithy K, **Umaramani M, Mathiventhan T** (2016). Yellow Oleander (*Thevetia peruviana*) Seed Poisoning (YOSP) in the Batticaloa District, Sri Lanka: Is related with Fruiting Season? *International Journal of Research Studies in Biosciences* (IJRSB), ARC Publication Private Limited 4(8):8-13.
5. **Mahendranathan C**, Adikaram, and **Jayasingam T**. (2016) Enhancement of natural resistance of *Capsicum annum* L. against anthracnose, through selected postharvest treatments. International conference on *Australasian Soil-borne Symposium* held in Lincoln University, New Zealand during 14 – 17 November, 2016.
6. **Mahendranathan C**, S.Thayalan (2016). Alteration of Stem End Rot disease of local mango (*Mangifera indica*) cultivars through postharvest handling practices. Proceeding of the *International conference on "Plant Research and Resource Management and 25<sup>th</sup> APSI Silver Jubilee Scientists Meet 2016"*, the Tuljaram Chaturchand College, Savitribai Phule Pune University, India. 11<sup>th</sup> -13<sup>th</sup> February, 2016.
7. **Mathiventhan, T, Jayasingam, T**. (2016). Present status of Mangrove restoration in Batticaloa district, Sri Lanka: Is it success? International Conference on Mangrove and Macrobenthos Meeting (MMM4), St. Augustine, Florida, USA, 18-22 July 2016.
8. **Sathananthan S** (2016). Comparative study on distribution of Phytoplankton according to seasonal variation at Buffalo Island (Hospital area) and Koddamunai New Bridge area of Batticaloa Lagoon. *International Journal of Scientific and Research Publication (IJARR)*, 1(10): 31-43.
9. **Sathananthan S** (2016). Comparative study on distribution of Phytoplankton according to seasonal variation at Thannamunai area and Kalladi Brifge area of Batticaloa Lagoon. *International Journal of Scientific and Research Publication (IJARR)*, 1(10): 120-131.

### Chemistry

1. Aiswarya N, **M Sithambaresan**, S S Sreejith, SW Ng, MRP Kurup (2016). Polymeric polymorphs and a monomer of pseudohalide incorporated Cu (II) complexes of 2, 4-dichlorido-6-[(2-(dimethylamino) ethylimino) methyl] phenol]: Crystal structures and spectroscopic behavior. *Inorganica Chimica Acta*(443): 251–266.
2. **Arasaretnam S**, N. N. Malleswara Rao, B. Balaraju, A. V. Sessa Sainath (2016). Glucose based macromolecular architectures syntheses, characterization and their cell-binding studies. International Conference on Advancement in Polymeric Materials, Proceedings (APM-2016), Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilizers, Govt. of India, Ahmadabad, India, Feb 12-14, 192-193.
3. Kunnath RJ, **M Sithambaresan**, AA Aravindakshan, A Natarajan (2016). The ligating versatility of pseudohalides like thiocyanate and cyanate in copper (II) complexes of 2-benzoylpyridine semicarbazone: Monomer, dimer and polymer. *Polyhedron* (113): 73-80.
4. Nithya C, **M Sithambaresan**, MRP Kurup (2016). Crystal structures of (1E, 4E)-1, 5-bis (5-bromothiophen-2-yl)-2, 4-dimethylpenta-1, 4-dien-3-one and (E)-4-(5-bromothiophen-2-yl)-1, 3-diphenylbut-3-en-2-one *Acta Crystallographica Section E: Crystallographic Communications* 72(2): 199-202.
5. S. Saranya, **M. Sithambaresan, M. Koneswaran** (2016). Synthesis and Characterization of Copper (II) and Cadmium (II) complexes of hydroxamate derivatives. Proceeding of the Peradeniya University International Research Secession iPURSE, Vol. 20, 4th & 5th November 2016.
6. SM Ng, **M Koneswaran**, R Narayanaswamy (2016). A review on fluorescent inorganic nanoparticles for optical sensing applications. *RSC Advances* 6: 21624-21661.

### Mathematics/Physics

1. **Elango P** (2016). Modeling population growth of Sri Lankan cities. 6<sup>th</sup> International Conference, SEUSL
2. **Fernando P R**, C J Sheppard, A R E Prinsloo (2016). Super conductivity and quantum critical behavior in Cr<sub>100-z</sub> Os<sub>z</sub> *Journal of Acta Physica Polonica A*, 16<sup>th</sup> Czech and Slovak Conference on Magnet: 334
3. **Johnpillai A G**, K S Mohamed, C Harley, F M Mohamed (2016). Noether symmetry analysis of the dynamic Euler-Bernoulli beam equation. *Zeitschrift für Naturforschung A*, 71(5)a: 447-456.
4. **Sitpalan A**, A R Horrocks, C Zhou, B Kandola (2016). Flame retardant polyamide fibres: The challenge of minimizing flame retardant additive contents with added nanoclays. *Polymers*. 8(288): 1-17.
5. **Sriranganesan J**, Nasir H M (2016). A mixed type of approximation method for radiation and scattering problems. *International Journal of Scientific and Research Publications*, 6(11): 517-523.
6. **Thirukkanesh S, F C Ragel** (2016). Charged analogue of well behaved neutral spheres: an algorithmic approach. *Chinese Physics C*, 40(4): 045101

## Faculty concerns on equity and equality of staff and students...

### Gender Equity and Equality (GEE)

The UGC has taken up the challenge to address unresolved concerns on gender inequalities and violence including sexual and gender-based violence (SGBV) in the Universities, by establishing a Centre for Gender Equity/Equality (GEE) in October 2015.

The FIRST GEE cell was established at the Eastern University (among the universities in Sri Lanka) on 13 June, 2016, along with "Faculty cell for GEE". It mainly focuses on on-campus ragging, violence; sexual and gender based violence (SGBV). The University **allows zero-tolerance** of ragging.



## Hands-on training...

### Molecular biology techniques...

Department of Zoology organized a training programme, titled "Hands-on training in molecular biology techniques" in collaboration with AVON Pharma Chem, during 8-9 December, 2016.



### Faculty students opened an internet zone...

#### Internet zone

Students of the 2014 batch (FOS '14) established and opened an internet zone as their group project. Dean/Science opened the building on November 2016.



## Faculty extends its concern on community too...

### Community out-reach programme

**Workshops** were organized for Advance Level (GCE A/L) teachers by the Faculty for biology, physics and chemistry teachers, from different schools in the Batticaloa district. Special emphasis on hands-on-practical of the relevant A/L subjects.

### Exhibition

Our students participated on "Future Dream Exhibitions 2016" at the BT/Chenkaladi Central College during 27-28 September, 2016 in collaboration with Ministry of education, Eastern Provincial Council.



### Sri Lanka Telecom

Sri Lanka Telecom is passionately committed to "Preserving heritage for tomorrow" for the benefit of future generations to ensure long term sustainability of the country's rich natural and cultural heritage. The SLT 2017 calendar is going to produce under the sub-theme "Traditional Rice of Sri Lanka" and aims to raise awareness among the general public.

Dr T Mathiventhan from Department of Botany, is one of the members of the team, preparing 2017-calendar.

### World Environmental Day

Dept. of Zoology organized and participated World Environmental Day – 2016 program under the theme "Towards the Green Environment" in collaboration with World Vision Lanka at Batticaloa.



Faculty of Science at Eastern University, Sri Lanka (EUSL) has established a reputation for over last 34 years to impart fundamentals of different branches of pure sciences, and has shown interest in maintaining high academic standards.

The faculty while being committed to the above philosophy is transforming to meet the modern educational practices and trends by introducing innovative teaching, learning and evaluation strategies, students centered learning (SCL) with the goal of producing graduates with knowledge, skills and attitude to adapt to a range of professional and social environments to work with a concern and passion towards others. The faculty provides a conducive intellectual, social and physical environment in which learning and research may flourish. Apart from undergraduate BSc degree programs, the faculty has been conducting research degree programs (MSc, MPhil and PhD) and taught postgraduate degrees.

Faculty of Science is now engaging in curriculum revision anticipating future demands for employment opportunities, research and development. In future, it focusses on Engineering Technology under the Technological stream, new postgraduate programmes (Diploma and Degree) and community outreach programmes.



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