



Established 1906

THE INSTITUTION OF ENGINEERS, SRI LANKA

120/15, Wijerama Mawatha, Colombo - 07, Sri Lanka.

July 15, 2024.

Dean of the Faculty of Engineering - University of Moratuwa
Dean of the Faculty of Engineering - University of Peradeniya
Dean of the Faculty of Engineering - University of Ruhuna
Dean of the Faculty of Engineering - University of Jaffna
Dean of the Faculty of Engineering – The Open University of Sri Lanka

Dear Sirs,

ENG. E W KARUNARATNA AWARD – 2022 / 2023
BEST UNDERGRADUATE PROJECT IN ELECTRICAL ENGINEERING

We are pleased to inform you that the selection process for the above awards has been completed.

Cash Award and Certificate:

Following students will receive cash awards and certificates. Their awards will be presented to them at the IESL Induction and Graduation Ceremony on Tuesday, July 23, 2024 at the Main Hall of the BMICH, Colombo from 1.00 p.m. onwards. Please inform awardees to be present at this event to receive their cash awards and certificates.

Project Name	Presenters	University
Design of an Interferometric Bio-Medical Radar for the Contactless Detection of Breathing and Heart Trate	Ms. G.A.A.Y.Gunasekara Mr. J.R.A.B Jayawardhana and Ms. B.A.Welagedara Supervisors: Prof. Aruna Gunawardena, Prof. Disala Uduwawala and Dr. S.A.H.A. Suraweera Dept. of Electrical & Electronic Eng., University of Peradeniya.	Dept. of Electrical & Electronic Engineering University of Peradeniya.

Contd. on page 2/-

Executive Secretary

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E-mail : iesl@slt.lk / ed@sltnet.lk Website : <http://www.iesl.lk>

Following students will receive certificates only. They can collect their certificates from the Publicity Division of the IESL on weekdays between 9.00 a.m. to 5.00 p.m. after the Induction and Graduation Ceremony.

Project Name	Presenters	University
A Computationally Efficient Deep-Learning Approach for Identification and Localization of Faults in a Microgrid	Mr. J.A.R.R. Jayasinghe, Ms. J.H.E. Malindi and Mr. R.M.A.M.Rajapaksha Supervisors: Dr. V. Logeeshan and Prof. S. Kumarawadu Dept. of Electrical Engineering University of Moratuwa	Moratuwa
3 Phase Battery Charger with V2L Facility	Ms. N.K.J. Pathirana, Ms. R.A.I.E.Ranaweera and Mr. P.H.W.K.A.S.Rodrigo Supervisor: Prof. J.P. Karunadasa	Moratuwa
Object Classification and Haptic Amplifier Based on Surface Texture	Mr. J.L.Dantanarayana, Mr. P.S.L.Fernando and Ms. U.G.S.Kashmira Supervisors : Dr R.M.M. Ruwanthika and Dr. A.M.H.S. Abeykoon Dept. of Electrical Engineering, University of Moratuwa	Moratuwa
Traveling Wave Based Fault Locator for Distribution Networks with high Renewable Penetration	Ms.B.A.D.S.Bamunusinghe, Mr. N. Kopisankar and Mr. J.M.Y.P.Peiris Supervisors : Dr. S.D.M.S. Gunawardana and Dr. V. Logeeshan Dept. of Electrical Engineering, University of Moratuwa	Moratuwa
Brain Signal Based Navigation of Intelligent WheelChair by Using Visual Perception	Mr. T.Apisaruthan, Mr. D.J.T.Fernando and Mr. M. Sobikanth Supervisors: Prof. A.G.B.P. Jayasekara and Prof. R.A.R.C. Gopura Dept. of Electrical Engineering, University of Moratuwa	Moratuwa

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Project Name	Presenters	University
Development of a Platform for Assessing Real Time Thermal Rating for Overhead Transmission Lines	Mr. N.H.P.Mihiran, Mr. L.C.Ranaweera and Ms. D.S. Senarath Supervisor: Prof. W.D.A.S. Rodrigo Dept. of Electrical Engineering, University of Moratuwa	Moratuwa
Identification of attention level by gage recognition using a semantic communication system	Ms. H.W.N.Sathsarani, Mr. M.M.Viduranga and Mr. W.A.V.G.Warnasooriya Supervisors: Dr. S.A.H.A. Suraweera and Prof. M.B. Dissanayake Dept. of Electrical & Electronic Eng., University of Peradeniya.	Peradeniya
Modelling and Simulation of a 5Kw Bidirectional Charger for Light EVs	Mr. M.Dilesha L. Mendis, Mr. B.P.P.Perera and Mr. P.G.P. Wijesekara Supervisors: Prof. Lilantha Samaranayake and Prof. Janaka Ekanayake Dept. of Electrical & Electronic Eng., University of Peradeniya	Peradeniya
Infrared Image Based-Condition Assessment of Lightning Surge Arresters	Mr. H.M.K.P. Dhanapala, Ms. R.S.Illesinghe, Mr. N.N.K.Paranawithana and Mr. W.B.S.Wijesinghe Supervisors: Prof. Manjula Fernando, Dr. Waranatha Abeygunasekara, and Dr. Kapila Bandara Dept. of Electrical & Electronic Eng., University of Peradeniya	Peradeniya
Hand Gesture Classification and Gait Analysis via Wearable Devices	Mr. T.D.Fonseka, Ms. R.G.M.S.Kulathunge and Mr. V.K.M. Pandukabhaya Supervisors: Prof. Parakrama Ekanayake, Prof. Vijitha Herath, Prof. Roshan Godaliyadda, Dr. Janaka Wijayakulasuriya and Prof. Chathura Ratnayake Dept. of Electrical & Electronic Eng., University of Peradeniya	Peradeniya

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Project Name	Presenters	University
Hyperspectral Unmixing for Remote Sensing	<p>Mr. D.C. Dammage, Mr. R.M.K.L. Ratnayake and Mr. K.A.R.S. Rodrigo</p> <p>Supervisors: Prof. Roshan Godaliyadda, Prof. Vijitha Herath and Prof. Parakrama Ekanayake Dept. of Electrical & Electronic Eng., University of Peradeniya</p>	Peradeniya
Multi - Spectral Imaging for Condition Monitoring	<p>Ms. K. K. Abewickrama, Mr. H.M.P.S. Madushan and Mr. H.L.P. Malshan</p> <p>Supervisors: Prof. Vijitha Herath, Prof. Roshan Godaliyadda, Prof. Parakrama Ekanayake, Prof. Terance Madujith, Prof. Sarath Nissanka, and Dr. Sarangi Athukorala Dept. of Electrical & Electronic Eng., University of Peradeniya</p>	Peradeniya
Implementing an Intrusion Detecting System using SDN	<p>Mr. S.B.Ihalagedara, Ms. K.G.M.H.Koswaththa and Ms. T.M.S.N.Senevirathna</p> <p>Supervisors: Prof. Maheshi Dissanayake and Mr. Anuradha Udunuwara Dept. of Electrical & Electronic Eng., University of Peradeniya</p>	Peradeniya
Energy Storage for Managing Distribution Grid with High Photovoltaic Power Penetration	<p>Mr. U.L.C.K.P.Jayasinghe, Mr. K.K.T.D.Karsnagoda and Ms. S.K.M.M.C.Kumari</p> <p>Supervisor: Dr.Iromi Ranaweera Dept. of Electrical and Information Engineering, University of Ruhuna</p>	Ruhuna
Synchronverter for Integrating Renewable Energy into the Power Grid	<p>Mr. W.M.D.U.Pabasara, Ms. L.Pirahavee and Mr. W.M.K.G.V.B.Wijekoon</p> <p>Supervisor: Dr. Iromi Ranaweera Dept. of Electrical and Information Engineering, University of Ruhuna</p>	Ruhuna

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Project Name	Presenters	University
Blockchain for Poisoning Attacks in Hierarchical Federated Learning Systems	Ms. T.M.R.N.Thennakoon, Mr. W.M.A. Wanigasundara and Mr. W.M.S.B.Weerasinghe Supervisor: Dr.Chatura Seneviratne Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Collaborative Federated Learning Platform for Privacy-preserved Decentralized Machine Learning in Industrial Internet of Things	Mr. K.I.L.Ketawala, Ms. P.G.K.M. Kushani and Mr.P.M.S.L.Pathiraja Supervisor: Dr. Thilina Weerasinghe Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Athlete Workload Management System using an IOT Based Wearable Wireless Body Area Network	Mr. P.M.Amarasingha, Mr. S.D.H.C.Gunawardhana and Mr. S.B.N.M.Sabaragamuwa Supervisor: Dr. Subodha Gunawardena Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Intelligent Combination of WIFI and Mobile Data Simultaneously for Better Internet Speed	Mr. W.C.N.Dayarathna, Mr. M.L Moyura and Mr. N.P.P.Narangoda Supervisor: Dr. Geeth Priyankara Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Deep Learning-based Virtual Assistant in Sinhala Language-Phase II	Mr. H.M.P.Bandara, Mr. W.M.U.W.Kalyanarathne and Mr. K.K.P.M.Ranasinghe Supervisor: Dr. Kushan Sudheera Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Analysis of the IoT threat Landscape	Mr. G.A.R.S.Ediriweera, Ms. E.W.T.K.Wickramadhara and Mr. R.A.A.G.Wicramasinghe Supervisor: Dr. Kushan Sudheera Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna

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Project Name	Presenters	University
Development of a V2X Testbed to Study the Characteristics of Vehicular Networks	Ms. D.A.D.H.P.Dematawaarachchi, Mr. D.M.M.B.Dissanayake and Mr. K.B.S.L.Indrasiri Supervisor: Dr. Kushan Sudheera Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Adaptive System using Edge Machine Learning for Gait Improvement in Patients with Parkinson Disease	Mr. M.Z.M.Ahamed, Mr. M.N.M.Ahsan and Mr. S.M.M.Mazar Supervisor: Dr.N.W. Prins Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Brachial Plexus Nerve Trunk Recognition in Ultrasound images using FPGA	Ms. H.D.V.N.Madhushani and Mr. N.H.M.Sudara Supervisor: Mr. Achintha I. Kondarage Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Anomaly Detection in Signatures using Deep Learning	Mr. S.W.K.C.H. Samarakoon and Ms. W.S.P.Y.G.C.Yapa Supervisor: Dr. Rajitha Udawalpola Dept. of Electrical and Information Engineering, University of Ruhuna	Ruhuna
Design & Economic Analysis of an Energy Regenerative System for Mid-Rise Building Elevators	Mr. S.M.R. Samarasinghe Supervisor: Ms.K.M.G.Y. Sewwandi Dept. of Electrical Engineering, The Open University of Sri Lanka	The Open University of Sri Lanka
Study on Improving Vertical Axis Wind Turbine Efficiency and Integrating the Modified Design in Colombo City	Mr. W.A.N.L. Prasad Supervisor: Mr.I.A. Premaratne Dept. of Electrical Engineering, The Open University of Sri Lanka	The Open University of Sri Lanka
Feasibility Study of Seawater Hydro Power Pumped Storage System in SL	Mr. K.L.K.S. Indunil Supervisors: Ms.K.M.G.Y. Sewwandi and Eng. H.H.D. Nalin Dept. of Electrical Engineering, The Open University of Sri Lanka	The Open University of Sri Lanka

Contd. on page 7/-

Project Name	Presenters	University
Renewable Energy Based Micro Grid for District General Hospital in Trincomalee	Mr. P.M.B. Weebedda Supervisor: Ms. K.M.G.Y. Sewwandi Dept. of Electrical Engineering, The Open University of Sri Lanka	The Open University of Sri Lanka
A Fuzzy AHP Approach for Feasibility Study of Concentrated Solar Power Plant (CSP) in Sri Lanka	Ms. P.N.W.D.S. Nagarawaththa Supervisor: Dr. K.A.C. Udayakumar Dept. of Electrical Engineering, The Open University of Sri Lanka	The Open University of Sri Lanka
Smart Ankle Shoe for Child with Foot Deformity	Miss.R.A.N.D. Ranaweera Supervisor: Mr.H. Pasqual and Dr. Jaliya Uduwella Dept. of Electrical and Computer Engineering, The Open University of Sri Lanka	The Open University of Sri Lanka
Residential Demand Side Management	Mr. I.P.D.R.P. Hemachandra and Ms. A.A.Y. Hansini Supervisor: Prof. Atputharajah Dept. of Electrical Engineering, University of Jaffna	Jaffna
Feasibility Analysis and Implementation of First Floating Solar System in Sri Lanka	Mr. G.H.M.K.M. Mohottala and Mr. W.C.M. Perera Supervisor: Prof. Atputharajah Dept. of Electrical Engineering, University of Jaffna	Jaffna
Wind-Solar Combined Power Generation for the Global Energy Crisis	Mr. P.G.I.M.M. Marasinghe and Mr. T.M.C.K. Meththananda Supervisor: Prof. Atputharajah Dept. of Electrical Engineering, University of Jaffna	Jaffna
Wind Turbine Preventive Maintenance Scheduling using Machine Learning Approaches	Ms. R.M.C.S. Siriwardhane and Ms. J.A.J. Upeksha Supervisor: Prof. K. Ahilan Dept. of Electrical Engineering, University of Jaffna	Jaffna

Contd. on page 8/-

Project Name	Presenters	University
Smart Ambulance	Mr. S.M.C.R.Subasinghe and Mr. U.A.L. Wijesekara Supervisor: Mr. P. Ravivarman (Ass. Dr. K. Ahilan) Dept. of Electrical Engineering, University of Jaffna	Jaffna

If you need any clarifications in this regard, please contact us on 011 2698426 Ext 207 or 232.

Thanking you,

Yours faithfully,

THE INSTITUTION OF ENGINEERS, SRI LANKA



Eng. Neil Abeysekera
CEO/ EXECUTIVE SECRETARY

cc:

- | | |
|---------------------------------|---|
| Dr. Chulantha Jayawardana | -IESL Liaison Officer- University of Moratuwa |
| Eng. S.M. Dissanayaka | -IESL Liaison Officer-University of Peradeniya |
| Eng. T.M. Rengarasu | - IESL Liaison Officer- Director, EEC, University of Ruhuna |
| Eng. (Ms.) Nimali Medagedara | -IESL Liaison Officer-The Open University of Sri Lanka |
| Prof. T. Thiruvaran | - Head/Dept. of Electrical and Electronic Engineering, University of Jaffna |
| Eng. (Prof.)W.D.A.S. Wijayapala | -Head/Dept. of Electrical Engineering, University of Moratuwa |
| Dr. R.M.M. Ruwanthika | -Final Year Undergraduate Coordinator/ Dept. of Electrical Engineering, University of Moratuwa |
| Dr. W.D. Prasad | -Coordinator/Dept. of Electrical Eng., University of Moratuwa |
| Dr. K.M.I.U.Ranaweera | -Senior Lecturer, Dept. of Electrical & Information Eng., University of Ruhuna |
| Eng. (Dr.) Rajitha Udawalpola | -Head/Dept. of Electrical and Information Engineering, University of Ruhuna |
| Eng. (Ms.) H. Pasqual | - Head/Dept. of Electrical and Computer Engineering, The Open University of Sri Lanka |
| Dr. K.A.C. Udayakumar | - Senior Lecturer, Dept. of Electrical and Computer Engineering, The Open University of Sri Lanka |