



Koneru Lakshmaiah Education Foundation

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DEPARTMENT OF ECE

KLEF-VADESWAREM

International Visiting Professor Program – Delivery of the course “Embedded Systems and Cloud Computing” Report

Date: 10-08-2026 to 14-08-2026

Name of the Visitor: Dr. Malathy Batumalay

Designation: Professor and Director, Centre of Data Science and Sustainable Technologies

Work Place: INTI International University, Malaysia

Contact Information: malathy.batumalay@newinti.edu.my

Purpose of Visit: International Visiting Professor Program – Delivery of the course “Embedded Systems and Cloud Computing” for II, III, and IV Year ECE students and III Year IoT (Embedded Cohort) students.

Organizing Departments:

1. Department of Electronics and Communication Engineering (ECE)
2. Office of International Relations (OIR), KLEF

Department Leadership:

1. Dr. I. Govardhini, Head of the Department and Professor, ECE
2. Dr. M. S. G. Prasad, Alternate Head and Professor, ECE

Program Coordinators:

1. Dr. Ashish Kumar, IR Coordinator, ECE Department
2. Dr. N. Prabakaran, Cohort Coordinator and Associate Professor, ECE

Faculty Coordinators / Session Hosts:

1. Dr. N. Prabakaran, Associate Professor, ECE
2. Dr. Aravind Kilaru, Associate Professor, ECE
3. Dr. A. V. Prabu, Associate Professor, ECE

The Department of Electronics and Communication Engineering (ECE), in association with the Office of International Relations, KLEF (Deemed to be University), Vaddeswaram Campus, organized an International Visiting Professor Program from 10th to 14th August 2026. The program featured Dr. Malathy Batumalay, INTI International University, Malaysia, who visited KLEF as an International Visiting Professor and delivered a series of lectures on Embedded Systems and Cloud Computing for II, III and IV Year ECE students and III Year IoT (Embedded Cohort) students. The visit aimed to strengthen international academic collaboration,

enhance student learning, and provide exposure to emerging technologies in Embedded Systems, IoT, Cloud Computing, Edge Computing, and Data Analytics.

Inaugural Session and Welcome Address

The International Visiting Professor Program commenced on 10th August 2026 with a warm welcome to Dr. Malathy Batumalay, Professor and Director, Centre of Data Science and Sustainable Technologies, INTI International University, Malaysia. Dr. Ashish Kumar (International Relations Coordinator, ECE) welcomed the guest and highlighted the importance of international academic collaborations. Dr. Aravind Kilaru, Associate Professor, ECE, introduced Dr. Malathy Batumalay and her academic and research contributions. Dr. I. Govardhini, HoD and Professor, ECE, addressed the gathering, emphasizing global learning opportunities and emerging technology exposure for students, while Dr. M. S. G. Prasad, Alternate HoD and Professor, ECE encouraged students to actively participate and benefit from the sessions. The program was coordinated by Dr. Ashish Kumar and Dr. N. Prabakaran, Cohort Coordinator and Associate Professor, ECE, with sessions hosted by Dr. N. Prabakaran, Dr. Aravind Kilaru, Associate Professor, ECE, and Dr. A. V. Prabu, Associate Professor, ECE, throughout the five-day event.

Day 1 – 10th August 2026 (Monday)

Session 1: Interaction with Faculty Members and Research Scholars

Time: 9:30 AM – 11:00 AM

Venue: Peacock Hall

Participants: Faculty members and research scholars

The program commenced with an interactive session involving faculty members, research scholars, and Dr. Malathy Batumalay. The discussion focused on emerging research opportunities in Embedded Systems, IoT, Cloud Computing, and interdisciplinary technologies. Dr. Malathy shared insights into current research trends, publication opportunities, collaborative research initiatives, and international academic practices followed at INTI International University. Faculty members and research scholars actively participated in discussions related to joint research activities, international collaborations, and innovation-driven academic programs.

Session 2: Fundamentals of Embedded System Design

Time: 2:00 PM – 4:00 PM

Venue: Peacock Hall

Participants: III Year ECE Students

Dr. Malathy introduced the fundamental concepts of Embedded Systems, including embedded hardware architecture, microcontrollers, memory organization, sensors, actuators, and software design principles. The session emphasized the importance of embedded systems in modern applications such as automotive

systems, consumer electronics, healthcare devices, and industrial automation. Students gained a strong foundation in embedded system design methodologies and practical implementation aspects.

Day 2 – 11th August 2026 (Tuesday)

Session 1: Introduction to Embedded System Design and IoT

Time: 11:00 AM – 1:00 PM

Venue: Jasmine Hall

Participants: II Year ECE Students

The session focused on the integration of Embedded Systems with the Internet of Things (IoT). Dr. Malathy explained the architecture of IoT systems, communication protocols, sensing technologies, and real-world applications such as smart homes, healthcare monitoring, and smart agriculture. Students were introduced to the role of embedded platforms in enabling intelligent connected systems.

Session 2: Fundamentals of Cloud Computing

Time: 3:30 PM – 5:30 PM

Venue: R004

Participants: III Year IoT Students

This session provided an overview of Cloud Computing concepts, including cloud service models (IaaS, PaaS, SaaS), deployment models, virtualization, cloud storage, and distributed computing. Dr. Malathy highlighted how cloud technologies support scalable IoT applications and data-driven systems. The session helped students understand the significance of cloud platforms in modern digital infrastructure.

Day 3 – 12th August 2026 (Wednesday)

Session 1: Embedded System Design for IoT Applications

Time: 9:30 AM – 11:00 AM

Venue: Jasmine Hall

Participants: II Year ECE Students

Dr. Malathy discussed the design and implementation of embedded systems specifically tailored for IoT applications. Topics included device connectivity, sensor integration, data acquisition, wireless communication technologies, and energy-efficient design strategies. Practical examples demonstrated how embedded devices interact within IoT ecosystems.

Session 2: Introduction to Edge Computing and Data Analytics

Time: 2:00 PM – 4:00 PM

Venue: Jasmine Hall

Participants: III Year ECE Students

The session introduced students to Edge Computing and its importance in reducing latency, improving response times, and enabling real-time decision-making. Dr. Malathy explained how data analytics techniques are applied to process large volumes of data generated by IoT devices. Students learned the relationship between cloud computing, edge computing, and intelligent data-driven applications.

Day 4 – 13th August 2026 (Thursday)

Session 1: Case Studies and Interactive Student Activities

Time: 9:30 AM – 11:00 AM

Venue: Jasmine Hall

Participants: IV Year ECE Students

This interactive session engaged students through case studies, group discussions, and problem-solving activities related to Embedded Systems, IoT, and Cloud Technologies. Students analyzed real-world scenarios and proposed technological solutions while gaining practical insights into industrial applications and system design approaches.

Session 2: Edge Computing and Data Analytics – Applications and Use Cases

Time: 2:00 PM – 4:00 PM

Venue: Jasmine Hall

Participants: III Year ECE Students

Dr. Malathy presented several real-world applications of Edge Computing and Data Analytics in domains such as smart cities, healthcare, industrial automation, transportation systems, and intelligent monitoring. The session highlighted industry use cases and emerging opportunities for engineers working in data-centric technologies.

Day 5 – 14th August 2026 (Friday)

Session 1: Embedded Systems and IoT – Concepts and Emerging Trends

Time: 9:30 AM – 11:00 AM

Venue: Jasmine Hall

Participants: II Year ECE Students

The concluding academic session focused on emerging trends in Embedded Systems and IoT. Dr. Malathy discussed Industry 4.0, Artificial Intelligence-enabled embedded devices, smart sensing technologies, cybersecurity challenges, and future technological developments. Students actively interacted with the speaker and discussed potential career opportunities and higher education prospects in these domains.

A special segment of the session was dedicated to Capstone Project Development, where Dr. Malathy explained the process of identifying problem statements, selecting suitable technologies, designing prototypes, conducting validation, and documenting project outcomes. Several innovative project examples related to IoT, Smart Healthcare, Smart Agriculture, Intelligent Transportation Systems, and Edge-AI applications were presented to inspire students and guide them in developing impactful capstone projects.

Valedictory Session and Felicitation

The program concluded with a Valedictory Session attended by faculty members, students, and departmental representatives. During the ceremony, Dr. I. Govardhini, Head of the Department, Electronics and Communication Engineering, felicitated Dr. Malathy Batumalay in recognition of her valuable contribution to student learning, faculty interaction, and international academic collaboration. Dr. Govardhini expressed sincere gratitude to Dr. Malathy for sharing her expertise and enriching the academic environment through her engaging lectures and interactive sessions. The department acknowledged her efforts in providing students with valuable global perspectives on emerging technologies and research opportunities.

Conclusion

The International Visiting Professor Program successfully provided students, faculty members, and research scholars with extensive exposure to contemporary developments in Embedded Systems, IoT, Cloud Computing, Edge Computing, and Data Analytics. Through interactive lectures, practical case studies, faculty interactions, and discussions on research and project development, the program significantly enhanced the participants' technical knowledge and global outlook. The visit also strengthened the academic relationship between KLEF (Deemed to be University) and INTI International University, Malaysia, paving the way for future collaborations in education, research, and innovation.







