

REPORT ON MALAYSIA VISIT

Staff Exchange Programme and Strengthening Academic Collaboration with Tunku Abdul Rahman University of Management and Technology (TAR UMT), Malaysia

Name	Dr. Muzammil Parvez M, Associate Professor, Department of Electronics and Communication Engineering (ECE), Koneru Lakshmaiah Education Foundation (KLEF), Guntur – 522502, India (Empl. ID 5251)
Host Institution	Tunku Abdul Rahman University of Management and Technology (TAR UMT), Kuala Lumpur, Malaysia
Country Visited	Malaysia
Purpose of Visit	Staff Exchange Programme – Academic Collaboration, Lectures/Workshops and Strengthening Institutional Relations
Duration	14-09-2025 to 27-09-2025 (14 days)
Invited By	Assoc. Prof. Ts. Dr Lim Li Li, Dean, Faculty of Engineering and Technology, TAR UMT

1. Objectives of the Visit

The visit to Tunku Abdul Rahman University of Management and Technology (TAR UMT), Malaysia was undertaken under the Staff Exchange Programme between KL University (Koneru Lakshmaiah Education Foundation) and TAR UMT. The visit, spanning 14 days from 14 to 27 September 2025, was aimed at strengthening the collaborative relationship between the two institutions through direct faculty engagement.

The specific objectives of the visit were to collaborate with the host faculty on academic activities including lectures, hands-on workshops and research discussions; to interact with students and staff of the Faculty of Engineering and Technology, TAR UMT; and to explore avenues for deeper academic cooperation between the two universities, in line with the invitation extended by the Dean, Faculty of Engineering and Technology, TAR UMT.

2. Arrival and Orientation at TAR UMT

On arrival at TAR UMT on 16 September 2025, a warm reception was extended by the host faculty at the university campus in Setapak, Kuala Lumpur. An initial orientation meeting was held with the faculty coordinators to finalize the schedule of lectures, workshops and other academic engagements to be conducted during the exchange period, and to discuss logistics including accommodation at Fern House, the university's in-house facility on campus.



Figure 1 Arrival at TAR UMT with the host faculty coordinators

3. Teaching / Academic Activities

During the exchange period, a series of lectures, workshops and a research talk were delivered to TAR UMT students and faculty, spanning both theory and hands-on sessions across the following topics:

- Digital Communication
- DSP – FIR/IIR Filter Design
- Digital System Design – Logisim
- Arduino/Tinkercad Workshop
- Research Talk – Thermal Signal Processing

3.1 Faculty Interaction and Laboratory Familiarization

A session was held with faculty members of TAR UMT to become familiar with the computer laboratory facilities and existing infrastructure available for student instruction. This interaction helped in understanding the practical teaching environment at TAR UMT and in planning the hands-on components of the subsequent lectures and workshops to align with the equipment and software available on campus.



Figure 2 Interaction with TAR UMT faculty in the computer laboratory

3.2 Digital Communication and DSP – FIR/IIR Filter Design

A lecture session was delivered on Digital Communication and Digital Signal Processing, with emphasis on FIR/IIR filter design. Topics covered included transfer function representation, the bilinear (Tustin) transformation from the s-domain to the z-domain, and the design procedure for digital filters from a given set of specifications. The session was attended by TAR UMT students and involved worked examples on the whiteboard to illustrate each design step.



Figure 3 Lecture session on DSP – FIR/IIR filter design at TAR UMT

3.3 Digital System Design – Logisim

A session on Digital System Design was conducted using Logisim, a digital logic simulation tool, to help students visualize combinational and sequential circuit design. The session covered the construction and simulation of basic logic circuits and reinforced the link between theoretical digital design concepts and their practical, simulated implementation.

3.4 Participation in TAR UMT Open Day

Participation in the TAR UMT Open Day provided an opportunity to interact with students, staff, and visiting faculty from partner institutions in an informal setting. Discussions during this event covered ongoing student projects and general prospects for continued academic exchange between TAR UMT and KL University.



Figure 4 Interaction with faculty and students during TAR UMT Open Day

3.5 Arduino/Tinkercad Workshop

A hands-on workshop on embedded systems was conducted using the Arduino platform and the Tinkercad simulation environment for undergraduate students. The session introduced microcontroller boards, sensors, and basic coding practices for embedded applications, allowing students to prototype circuits virtually before hardware implementation, and was followed by an interactive question-and-answer segment with the students in the laboratory.



Figure 5 Conducting the Arduino/Tinkercad workshop



Figure 6 Students attending the Arduino/Tinkercad workshop

3.6 Research Talk – Thermal Signal Processing

A research talk was delivered on Thermal Signal Processing, covering approaches to acquiring, processing, and interpreting thermal signal/image data for diagnostic and monitoring applications. The talk was aimed at

exposing TAR UMT faculty and research students to this application area and identifying possible common ground for future collaborative research.

4. Key Outcomes of the Visit

The staff exchange visit strengthened the working relationship between KL University and TAR UMT through direct classroom and laboratory engagement rather than administrative discussion alone. Host faculty and students responded positively to the lectures on Digital Communication, DSP – FIR/IIR filter design, and Digital System Design using Logisim, as well as to the hands-on Arduino/Tinkercad workshop, all of which supplemented the existing curriculum at TAR UMT. The research talk on Thermal Signal Processing further opened a possible avenue for future collaborative research with interested TAR UMT faculty.

The visit also provided first-hand exposure to the teaching infrastructure, laboratory facilities, and student engagement practices at TAR UMT, which can inform similar practices at KL University. Informal discussions held during the Open Day and with host faculty reaffirmed mutual interest in continuing the staff exchange programme in future academic terms.

5. Departure

On 27 September 2025, before departure, a farewell meeting was held with the host faculty coordinators at Fern House, the campus accommodation facility, to conclude the visit and thank the host faculty for their support and hospitality throughout the exchange period.



Figure 7 Farewell photograph with host faculty at Fern House before departure

6. Recommendations and Future Action Plan

Immediate Actions

- Maintain regular communication with the Faculty of Engineering and Technology, TAR UMT, particularly the faculty coordinators engaged during the visit.
- Share the lecture and workshop materials used during the visit with the host faculty for their continued reference.

Short-Term Actions

- Explore a reciprocal staff exchange visit inviting TAR UMT faculty to KL University.
- Identify common subject areas (digital signal processing/filter design, digital system design, embedded systems, thermal signal processing) for joint workshops or guest lectures in future semesters.
- Discuss the possibility of extending the collaboration towards joint student projects or research publications in the shared area of interest.

Submitted by:

Dr. Muzammil Parvez M

Associate Professor, Dept. of Electronics and Communication Engineering (ECE), Koneru Lakshmaiah Education Foundation (KLEF)

Empl. ID. 5251