



# RAMCO INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University  
Accredited by NAAC & An ISO 9001: 2015 Certified Institution  
NBA Accredited UG Programs: CSE, EEE, ECE and MECH

Academic Year 2021 – 2022 (Even Semester)

## Details of Programme Organized

| Sl. No. | Contents                     | Details                                                                                                                                                                                                       |
|---------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01.     | Title of the programme       | Smart Applications of IoT for the Community                                                                                                                                                                   |
| 02.     | Programme Theme              | Research opportunities                                                                                                                                                                                        |
| 03.     | Programme Type               | Webinar                                                                                                                                                                                                       |
| 04.     | Details of resource person   | Prof. Mohd Helmy Abd Wahab<br>Principal Research Fellow<br>Advanced Telecommunication Research Center<br>Faculty of Electrical and Electronics Engineering<br>Universiti Tun Hussein Onn Malaysia<br>Malaysia |
| 05.     | Mode & Venue / Platform      | Google Meet<br><a href="https://meet.google.com/ebg-zyon-ydg">https://meet.google.com/ebg-zyon-ydg</a>                                                                                                        |
| 06.     | Date & Duration              | 20.07.2022 & 1hour 15 minutes                                                                                                                                                                                 |
| 07.     | No. of Student Participants  | 12                                                                                                                                                                                                            |
| 08.     | No. of Faculty Participants  | 16                                                                                                                                                                                                            |
| 09.     | No. of External Participants | 4                                                                                                                                                                                                             |
| 10.     | Expenditure amount (if any)  | NIL                                                                                                                                                                                                           |
| 11.     | Registration Link            | <a href="https://tinyurl.com/INT007-SIOT">https://tinyurl.com/INT007-SIOT</a>                                                                                                                                 |

### 12. Objective of the Programme:

- To impart knowledge on cutting edge technologies (Smart IoT systems in community applications) to the participants and to upgrade the expertise of the faculty members in mechanical engineering and allied engineering field.

### 13. Detail description of the activity:

Extramural Lecture Series on the topic "**Smart Applications of IoT for the Community**" was organized by Department of Mechanical Engineering, Ramco Institute of Technology, Rajapalayam on 20.07.2022. The main objective of this ELS is to impart knowledge about cutting edge technologies related to applications of IoT in solving community problem and its benefits. The Resource Person was Prof. Mohd Helmy Abd Wahab, Principal Research Fellow, Advanced Telecommunication Research Center, Faculty of Electrical and Electronics Engineering, Universiti Tun Hussein Onn Malaysia, Malaysia

Dr.S.Godwin Barnabass, ASP/Mech welcomed the participants and Dr.J.Jabinth, AP/Mech delivered the introduction about the resource person. Prof. Mohd Helmy Abd Wahab gave a brief introduction about Internet of Things (IoT) and its current trend in the modern era. He listed the various domains / applications of IoT as follows:

- Building and Home automation
- Manufacturing
- Medical and Healthcare
- Media
- Environmental Monitoring
- Infrastructure management
- Energy management
- Transportation
- Better quality of life for elderly citizens

Towards the second half of the session, the resource person explained how the IoT had improved the quality and life style of people with case examples like Smart weather station, smart parking, etc. Later, he narrated his experience in working on the IoT applications in the University where he is currently associated with. He in detail explained the following where he is having rich experience and knowledge through practical implementation:

- Smart recycle bin as a lab scale prototype
- Recycle bin notification system and location tagging using GSM

He concluded his session with achievements reached through this project. Finally, the session ended with Q&A, where the queries asked by the participants were clarified by the Professor. The vote of thanks was given by Dr.S.Godwin Barnabass, ASP/Mechanical, RIT. The total no. of participants presented in the webinar was 32 including 4 external participants. The overall feedback of the program was good.

#### 14. Banner / flyer of the programme:



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Department of Mechanical Engineering

### EXTRAMURAL LECTURE SERIES(ELS) - INT008

### SMART APPLICATIONS OF IOT FOR THE COMMUNITY

Research Credentials






**Mohd Helmy Abd Wahab**

Principle Research Fellow  
Advanced Telecommunication Research Center  
Faculty of Electrical and Electronic Engineering  
Universiti Tun Hussein Onn Malaysia, Malaysia

Date : July 20, 2022  
(Wednesday)  
IST: 02.00 P.M.  
Malaysia Time: 04.30 P.M.

Registration Link : <https://tinyurl.com/INT008-SIOT>

|                                                                   |                                                            |                                                                            |                                                    |
|-------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------|
| <p>COORDINATOR<br/>DR.S.GODWIN BARNABAS<br/>ASSOC. PROF./MECH</p> | <p>CONVENER<br/>Dr.P.SURESHKUMAR<br/>ASSOC. PROF./MECH</p> | <p>PATRON<br/>Dr.S.RAJAKARUNAKARAN<br/>VICE PRINCIPAL &amp; HEAD /MECH</p> | <p>CHIEF PATRON<br/>Dr.L.GANESAN<br/>PRINCIPAL</p> |
|-------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------|

#### 15. Programme Photographs:

REC
Mohd Helmy Bin Abd Wahab is presenting
Press Esc to exit full screen

### Domain of IoT

☐ Building and Home automation
 ☐ Manufacturing
 ☐ Medical and Healthcare systems
 ☐ Media
 ☐ Environmental monitoring
 ☐ Infrastructure management
 ☐ Energy management
 ☐ Transportation
 ☐ Better quality of life for elderly
 ☐ ... ..

*You name it, and you will have it in IoT!*



  
Godwin Barnabas S

  
Arun Kumar Rajase...

  
Venkatesh R

  
HOD MECH

  
Mari Selvam

  
Mohd Helmy Bin Ab...

  
23 others

  
You

ebg-zyon-ydg

Track Attendance

Mohd Hamez Bin Abd Wahab is presenting

### Current Solution Practice

Manually bring wastes to the recycling efficiency using outsourcing off-site

Manually weight wastes to be converted to equivalent MYR

slg-ayon-ydg Track Attendance

Mohd Hamez Bin Abd Wahab is presenting

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### PHASE 1: Smart Recycle Bin - Solution

Phase 1

- Research University Funding - Product Development Grant
- Proof of Concept
- Patented process

Mohd Hamez Bin Abd Wahab et al. (2014) Smart Recycle Bin: A Conceptual Approach to Managing Waste With Integrated Web-based System. *International Journal of Science Technology and Society*, 2(1), 21-30. doi:10.1159/issn.2167-9153.2014.00001

slg-ayon-ydg Track Attendance

Mohd Hamez Bin Abd Wahab is presenting

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### Recycle Bin Notification System and Location Tagging (using GSM)

- Innovation Competition
- Consolation Prize, Innovate Malaysia Design Competition 2016, 9 August 2016, Equatorial Hotel, Penang
- 2nd Prize, IEEE Final Year Project Competition 2016, Track Computer
- GOLD Medal at International Innovation and Design Exposition 2016 (INDEX 2016), 25 - 27 September 2016, UTM Shah Alam, Selangor

Publications

Mohd Hamez Bin Abd Wahab, Nor Shila Othman, Redzi Amber, Muhamad Hamez Jabbar, Mohd Razali Tarmizi, Azzila Abdul Kadir. (2018). GSM-based Notification System for Smart Recycle Bin. *International Journal of Machine Learning and Computing*, Vol. 8, Issue. 5, 493 - 500

slg-ayon-ydg Track Attendance

Prepared by:

Form No. CO10

Rev.No. 00

Approved by

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Effective Date: 08.12.2020



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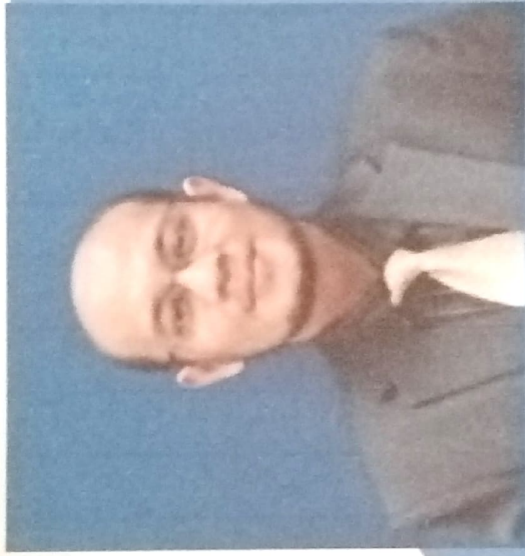
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