



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
(NAAC 'A' Accredited & ISO 9001:2015 Certified Institution)
(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University, Kerala)



6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff

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Nehru College of Engineering and
Research Centre (Autonomous)
Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680588



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
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SEMINAR REPORT

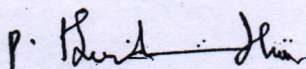
"ROLE AND REACH OF NATIONAL EDUCATION POLICY(NEP)-2020 IN TECHNICAL EDUCATION"

ORGANISED BY:

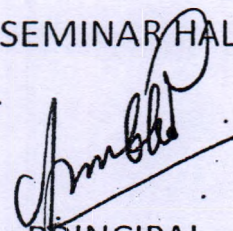
INTERNAL QUALITY ASSURANCE
CELL(IQAC)-NCERC

DATET:14-12-2022

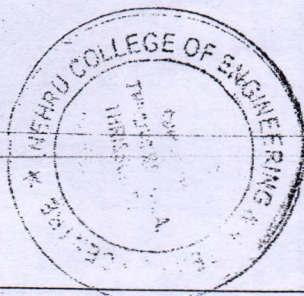
VENUE:ARYABHATTA SEMINAR HALL

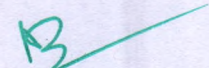

COORDINATOR

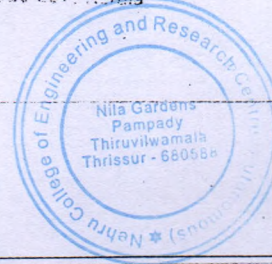

CONVENOR


PRINCIPAL

PRINCIPAL
Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt.
Pin - 680 597, Kerala




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PROFORMA OF APPLICATION

1. Name of the Institution: NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
2. Whether the Institution has got earlier seminar Grant sanctioned by NAAC within the period of present accreditation cycle.

No
3. In case of Colleges, name of the University to which the college is affiliated:
APJ ABDULKALAM TECHNOLOGICAL UNIVERSITY TRIVANDRUM - KTU
4. Details of Recognition by UGC: (if recognized) NIL
5. NAAC Accreditation Status:!

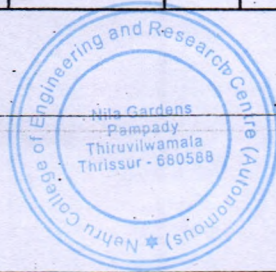
Cycles	Validity Period	Grade	CGPA/Percentage
Cycle - 1	2015-2020	B	2.72
Cycle - 2	2021-2026	A	3.18
Cycle - 3			
Cycle - 4			
Cycle - 5			

6. Type of the Institution:

Govt.	—	Grant-in-aid	—	Private	—	Self-financing	YES
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7. Location of the college

Rural	YES	Semi urban	—	Urban	—
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8. Name of the Activity

Seminar	YES	Conference	---	Workshop	---
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9. Theme of the Seminar:

ROLE AND REACH OF NATIONAL EDUCATIONAL POLICY (NEP) - 2020 IN TECHNICAL EDUCATION

10. Proposed dates: 15-12-2022

(Proposal should be sent five to six months in advance and the proposal need to be sent by the Internal Quality Assurance Cell (IQAC) of the Institution)

11. Venue Seminar: NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

12. Name and Communication details of the Organizing Institution

- Name of the Head of the Institution: Prof.Dr.AMBIKADEVI AMMA .T

Institution's Name: NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

Address: NILA GARDENS PAMPADY, THIRUVILWAMALA, THRISSUR, KERALA

Email: principal@ncerc.ac.in

PIN code:

6	8	0	5	8	8
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Website: www.ncerc.ac.in

Mobile No. 7510882777

Phone No. (O) STD Code: 04884 No.284000

Fax No. STD Code _____ No. _____

Name of the Convenors of the IQAC: 1)Dr.Sobha Manakkal 2)Prof. Sundaramoorthi.P.

Designation:

1) Director IQAC & PROF & HEAD/EEE Department NCERC

2) Professor ,EEE Department ,NCERC

Ph. No. Officer:04884-284000 Residence: _____

Mobile:8589058522,9544869231,9446458522

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E-mail id: jqac@ncerc.ac.in hodeee@ncerc.ac.in

Brief write-up about the seminar highlighting its importance in the National Context (Separate papers to be attached)

a. About the Institution: (Maximum 500 words)

Nehru College of Engineering and Research Centre (NCERC), a temple of knowledge well known for its dedicated and committed service to the realm of technical education in Kerala, is an ISO 9001:2015 certified institution, approved by the All India Council for Technical Education (AICTE) and is accredited by National Assessment and Accreditation Council (NAAC-A Grade) and National Board of Accreditation (two programs). It is also an approved research center that caters to the needs of higher education and research. The Institution offers five undergraduate programs in engineering and post graduate programs in Cyber Security, VLSI, Computer Science and Engineering and Energy systems apart from post graduate programs in Master of Computer Applications and Master of Business Administration. All the departments are headed by highly qualified, experienced and committed faculty who are highly professional. International seminars, lectures, workshops, technical exhibitions, co-curricular and extra-curricular activities are organized by the college on a regular basis to enlighten the minds of the student fraternity. With a perfectly designed and absolutely fabulous infrastructure NCERC is a cut above the rest. It is equipped with well-furnished classrooms, modern laboratories, auditoriums, hostels, subsidized canteens, transportation facilities, Wi-Fi connectivity and a modern library with a rich collection of books. With all the modern facilities and a conducive environment for peaceful intellectual activity, NCERC is a sought after place for healthy life, lucid thinking and pleasant learning pursuits

13. Theme: **ONE DAY NATIONAL SEMINAR ON ROLE AND REACH OF NATIONAL EDUCATIONAL POLICY (NEP) – 2020 IN TECHNICAL EDUCATION**

a. Objectives (Maximum 300 words):

Technical Education is pivotal in the development of the Nation and preparing the teaching fraternity for the changing Educational scenario especially Technical Education in the wake of introduction of NEP 2020 needs pressing attention. One day seminar on the proposed theme will be instrumental in having an assembly of professional educators which can provide a platform for disseminating the crucial aspects of NEP 2020 and its implications on Technical Education.

The resource person will be chosen such that he/she will be able to deliver their knowledge in the upcoming education reforms and to moderate the thoughts and views of the participants. The participants from various Engineering Institutions across the Nation will be able to learn the expected outcome of the New Education Policy. The seminar also intends to investigate the use of technology in effective teaching and learning processes, to promote independent, critical, and creative thinking in order to speed up the teaching-learning process and policies to be adopted to create world class multidisciplinary higher education institutions across the country. Another focus area is to explore strategies that can be adopted to promote independent, critical, and creative thinking in order to speed up the teaching-learning process and to assist the teaching community in facilitating subject-specific growth through research. National and International accreditation process which will enable higher education to align towards the changing need of Industry and society and to transform higher education institutions as centre of excellence at par with International Universities are in consideration during dissemination of the seminar content. The broad objective of the proposed seminar is to make teaching and learning enjoyable and interesting for

the teacher and the learner.

b. Sub Themes:

- Quality Education, Reinventing the Technical education
- Curriculum and Pedagogy in professional education
- Role and responsibilities of higher education
- New institutional architecture
- Indian knowledge systems, languages, cultures and values
- Use of technology advancement

c. Expected outcome:

Creating awareness amongst the participants on the key elements of NEP 2020 including

- Attaining foundation learning and numeracy skills through national mission by 2025
- Inclusive and equitable education system by 2030
- 360 degree holistic progress card of students
- National assessment center
- Setting up new quality HEIs made easier
- Standalone HEIs and professional education institutions will evolve into multidisciplinary
- Research on language

d. Participants (nature / categories):

Technical Institution and university level teachers, Teacher Educators, researchers and students working in south east, Principals, Administrators, Curriculum Developers, Teaching Learning Material Developers, Any other interested persons

e. Estimate of expenditure as given below: (Item 15)

14. Nature (Geographical area covered) of the Seminar :

State National yes

15. Number of participants expected to attend

From same District

From same State:

From other States:

16. Broad details of the total estimated expenditure: (In Rupees)



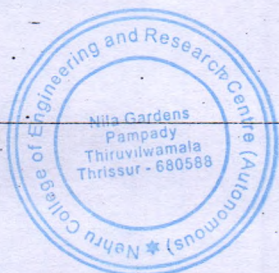
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Thiruvilwamala, Thrissur - 680588

	Specific items of expenditure	Amount(Rs.)
a	Pre-conference and venue Arrangements	Rs 25,000
b	Resource Persons-TA, Honorarium, etc.:	Rs 15,000
c	Lunch, tea and hospitality:	Rs 36,000
d	Publication of proceedings:	Rs 8,000
e	Miscellaneous :	Rs 20,000
	Grand Total	Rs 1,04,000

NB: Rs 35000/- will be met by the Institution as above

17. Financial assistance (in Rs.68, 900) required from NAAC for this activity.

	Specific items of expenditure	Amount(Rs.)
a	Pre-conference and venue Arrangements	Rs 10,000
b	Resource Persons-TA, Honorarium, etc.:	Rs 15,000
c	Lunch, tea and hospitality:	Rs 26,000
d	Publication of proceedings:	Rs 8,000
e	Miscellaneous :	Rs 10,000
	Grand Total	Rs 69,000



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CERTIFICATE

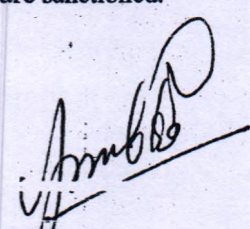
This is to certify that

- a). Institution has no objection if the Seminar on
**ROLE AND REACH OF NATIONAL EDUCATIONAL POLICY (NEP) – 2020 IN TECHNICAL
EDUCATION** is organized in the Institution premises

From 15-12-2022 to 15-12-2022

- b). Space and other infrastructural facilities would be extended for organizing the aforesaid Seminar
- c). The funds shall be utilized for the purpose for which they are sanctioned.




Signature of the Head of the Institution
PRINCIPAL

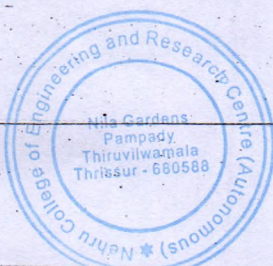
Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt.
Name with address

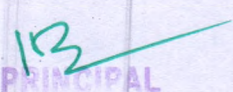
Prof. Dr. Ambikadevi Amma .T
Principal

Nehru College of Engineering and Research Centre, Pampady, Thrissur, Kerala

Date: 09-06-2022

Official seal




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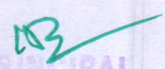


INTERNAL QUALITY ASSURANCE CELL

Nehru College of Engineering and Research Centre – IQAC organized One day National Seminar on “ROLE AND REACH OF NATIONAL EDUCATION POLICY(NEP)-2020 IN TECHNICAL EDUCATION” on December 14, 2022 in Hybrid Mode.

Nehru Group of Institutions (NGI) with its humble beginning in 1968 at Kuniyamuthur, Coimbatore, Tamil Nadu was established by the Founder Chairman Late Shri P.K.Das with the objective of providing higher education in the field of Aeronautical Engineering. NGI progressively flourished and started offering undergraduate (UG), postgraduate (PG) and doctoral(PhD) programs in all major Engineering branches, Management, Medical Sciences, Architecture, Law, Arts and Science, Paramedical Sciences and Hospitality management. NGI also started offering pre-school education to kids, with the establishment of International Schools. Currently, the Nehru Group of Institutions operates through its 20+ state-of-the-art institutions in the states of Kerala and Tamil Nadu.

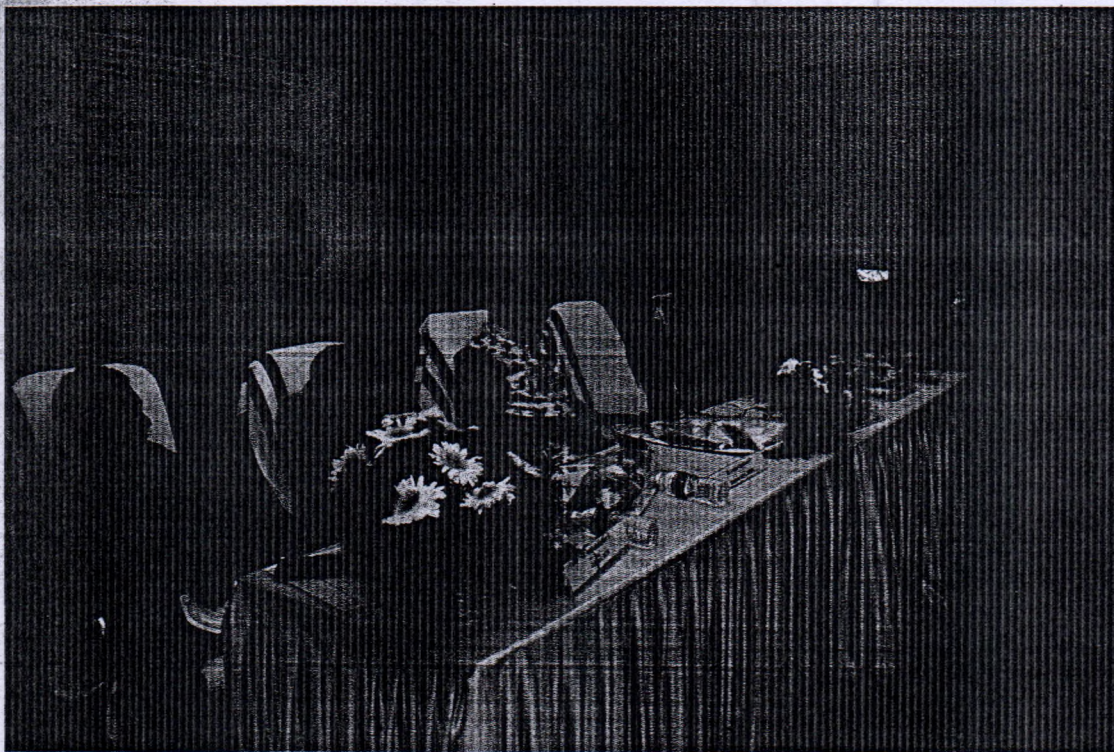
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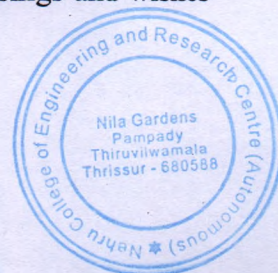
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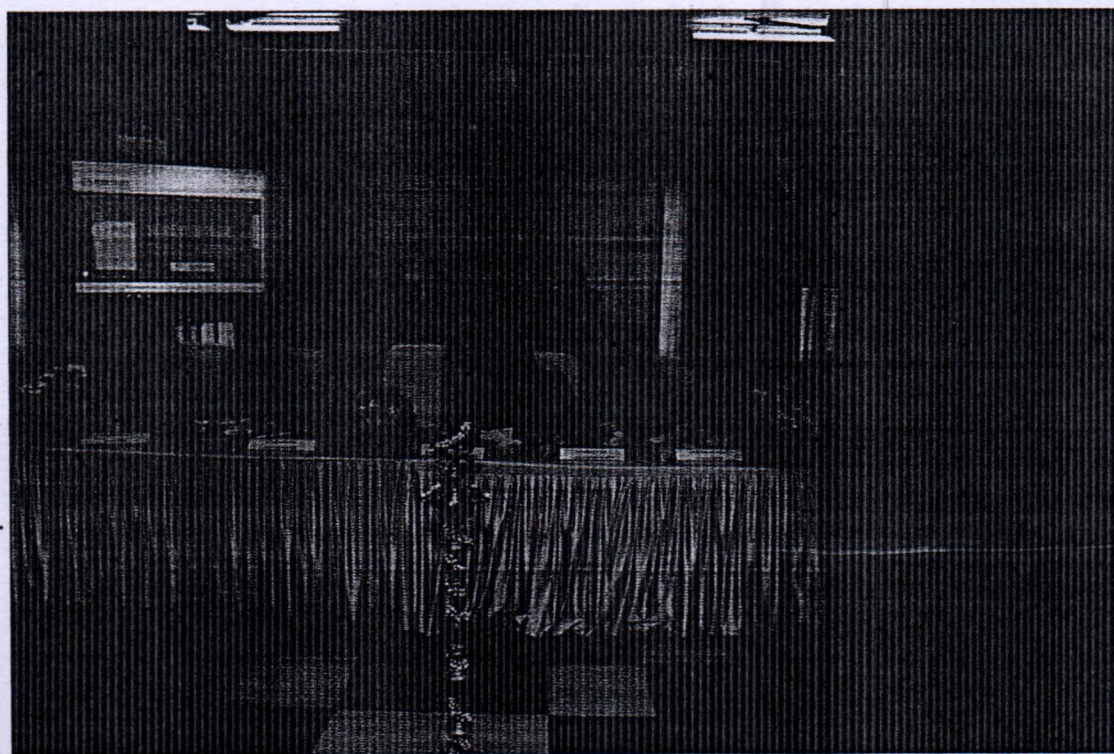
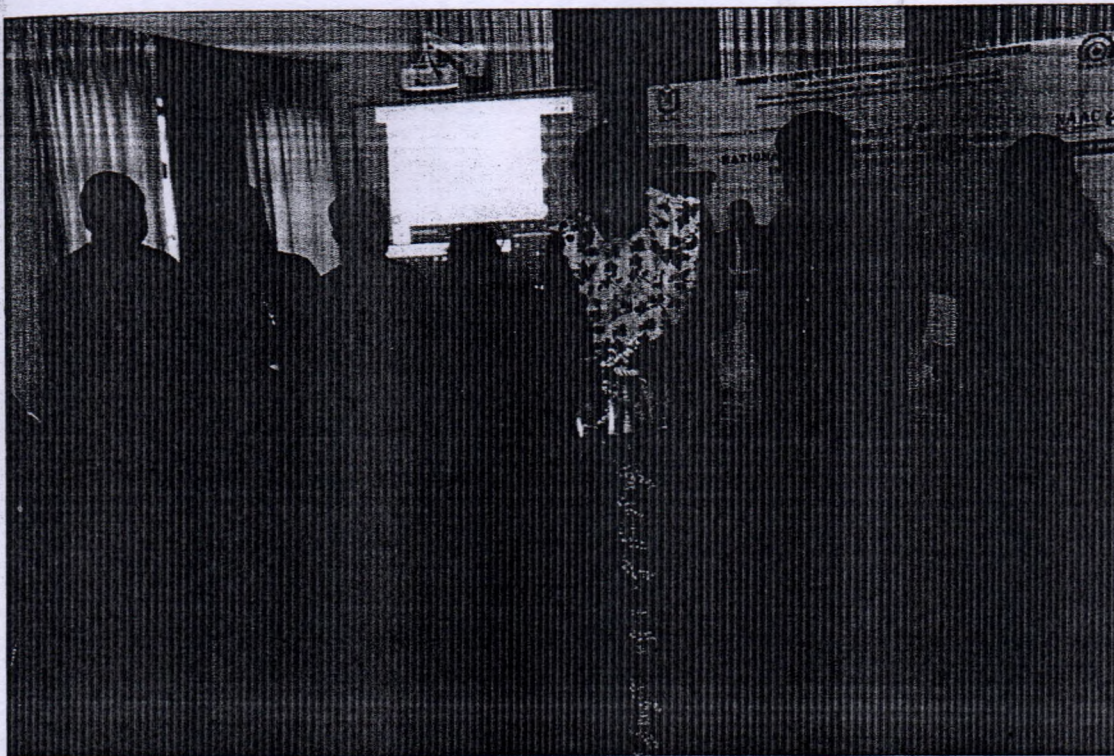
The inaugural session was organized in the presence of Dr.Kuncheria P Isaac , Founder Vice Chancellor, Kerala Technological University (KTU) , Former Member Secretary of AICTE , Adv.Dr.P.Krishnadas, Chairman and Managing Trustee , Nehru Group of Institutions, Dr.Ambikadevi Amma T, Principal of Nehru College of Engineering and Research Centre, Dr. Radha Krishnan K, Emeritus Professor, NGIK, Dr.Sobha Manakkal , Director IQAC, Prof. P. Sundaramoorthi , Coordinator of the seminar , participants from various institutions and faculty members.



The seminar was officially inaugurated by Dr.Kuncheria P Isaac, Founder Vice Chancellor, Kerala Technological University (KTU), Former Member Secretary of AICTE in the seminar hall of Aryabhata Block of the Institution. The dignitaries showered their blessings and wishes for the seminar.

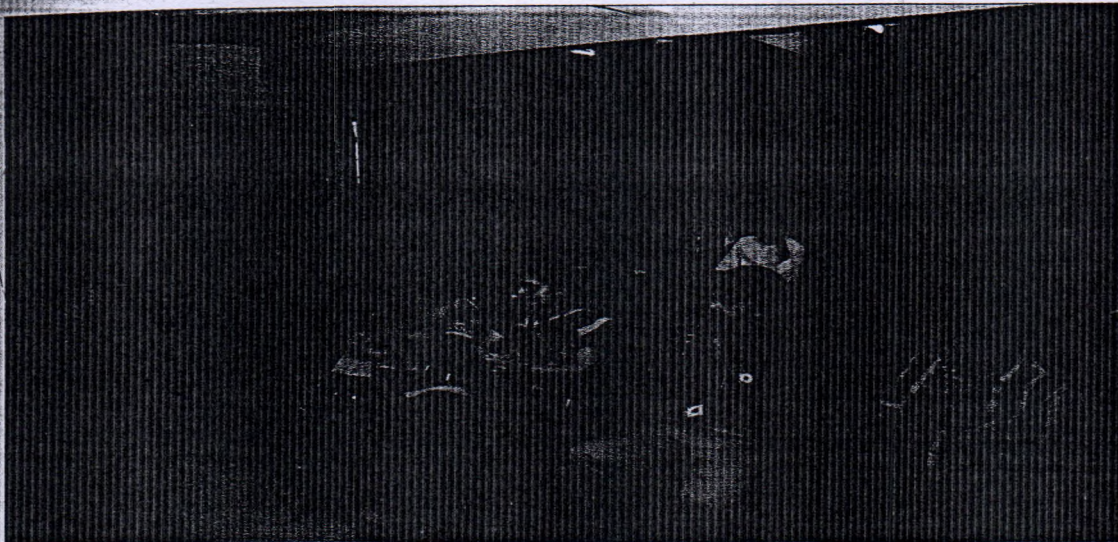
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Dr.Kuncheria P Isaac delivered a session on "Role and Reach of National Educational Policy (NEP) 2020 in Technical Education. The session focused in imparting knowledge on the evolution, value, importance and role of NEP in various levels of education starting from school to Higher Education. The session highlighted the skills to be developed by students in various levels of education. Information regarding the Academic Bank of Credits and awarding of degrees based on credits was clearly explained by the resource person.



NATIONAL EDUCATION POLICY



Dr KUNCHERIA P ISAAC

|| meet.google.com is sharing your screen. Stop Meeting Hide

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The screenshot shows a presentation slide titled "Costly Awareness in Higher Education". The slide content includes:

- Author:** Jyoti Vaidyanathan, MEd, Teacher, December 2012
- Original inspiration for, drawn by:** Dr. Vaidyanathan, Jyoti Chidambaram
- As discussed, related to, prepared by:** Dr. Vaidyanathan, Jyoti Chidambaram
- As discussed, related to, prepared by:** Dr. Vaidyanathan, Jyoti Chidambaram
- As discussed, related to, prepared by:** Dr. Vaidyanathan, Jyoti Chidambaram

The slide is displayed within a Beamer presentation window, showing navigation icons and a search bar at the top. The bottom of the image shows a mobile interface with a dock containing icons for messages, a calendar, a clock, and a camera, along with a status bar at the very bottom.



institution. The session emphasized the importance of NAAC Accreditation, NBA Accreditation, NIRF, Autonomous Status, Deemed University Status. The speaker explained the quality practices to be implemented by the Higher Educational Institution to upgrade the status and bring in innovations in the educational sector. The speaker insisted on the importance of research activities by the students and faculty members to improve the quality of education.

Gowarchan Allison is presenting

Quality Assurance

Quality Assurance refers to the process of maintaining standards reliably and consistently by applying criteria of success in a course, programme or institution.

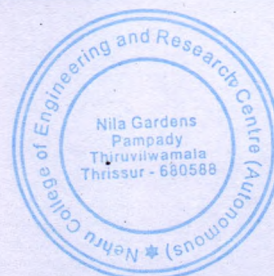
- › Quality Assurance can be defined in terms of its four components:
- › Everyone in the enterprise has a responsibility for enhancing the quality of the product or service
- › Everyone in the enterprise has a responsibility for maintaining the quality of the product or service
- › Everyone in the enterprise understands, uses and feels ownership of the systems which are in place for maintaining and enhancing quality and
- › Management regularly checks the validity of the system for checking quality (Frazer, 1992).

NAAC Sponsored online National Educational Policy

Around 120 faculty members across the country participated in the seminar both in offline and online mode. The response from the participants was extremely encouraging and the participants requested to organize further more programs on National Educational Policy.

The Seminar concluded with vote of thanks delivered by the coordinator and national anthem.

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INTERNAL QUALITY ASSURANCE CELL (IQAC)

Participant feedback

One day National Seminar on "Role and Reach of National Educational Policy (NEP) - 2020 in Technical Education"

Name of Faculty: *Shirani Reddy Samugali*

Designation: *Faculty and PHD student*

Name of College/Institute/University: *VB-IT, JNTU-Hyderabad*

1. How useful was this event for you?

(Please circle the appropriate number where 1 = not at all useful and 5 = extremely useful)

1 2 3 4 **5**

2. How did you come to know about this program?

It has been suggested by my college Principal and instructional

3. Do you think that NEP 2020 will have a good impact on higher education?

(Please circle the appropriate number 1 = disagree and 5 = completely agree)

1 2 3 **4** 5

4. How will you rate the online conferencing (If you have attended online)

(Please circle the appropriate number where 1 = not at all efficient and 5 = extremely efficient)

1 2 3 **4** 5

5. How will you rate the arrangements of the event? (If you have attended physically)

(Please circle the appropriate number where 1 = bad and 5 = excellent)

1 2 3 4 **5**

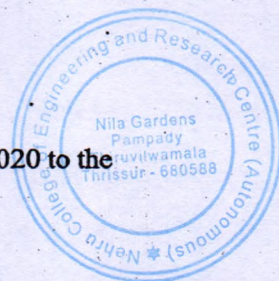
6. How much confidence and knowledge you have gained from this event to advocate NEP 2020 to the teaching community at your reach?

(Please circle the appropriate number where 1 = nil and 5 = excellent)

1 2 3 **4** 5

7. Your comments or suggestions, if any

It is very pleasant to attend the event of knowing how it has to be known by the students about knowledge in general topics.



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INTERNAL QUALITY ASSURANCE CELL (IQAC)

Participant feedback

One day National Seminar on "Role and Reach of National Educational Policy (NEP) - 2020 in Technical Education"

Name of Faculty: P. T. Rajeena Mol

Designation: Assistant Professor

Name of College/Institute/University: Nehru College of Engineering and Research Centre

1. How useful was this event for you?

(Please circle the appropriate number where 1 = not at all useful and 5 = extremely useful)

1 2 3 4 5 ✓

2. How did you come to know about this program?

Promotions, college website

3. Do you think that NEP 2020 will have a good impact on higher education?

(Please circle the appropriate number 1 = disagree and 5 = completely agree)

1 2 3 4 5 ✓

4. How will you rate the online conferencing (If you have attended online)

(Please circle the appropriate number where 1 = not at all efficient and 5 = extremely efficient)

1 2 3 4 5

5. How will you rate the arrangements of the event? (If you have attended physically)

(Please circle the appropriate number where 1 = bad and 5 = excellent)

1 2 3 4 5 ✓

6. How much confidence and knowledge you have gained from this event to advocate NEP 2020 to the teaching community at your reach?

(Please circle the appropriate number where 1 = nil and 5 = excellent)

1 2 3 4 5 ✓

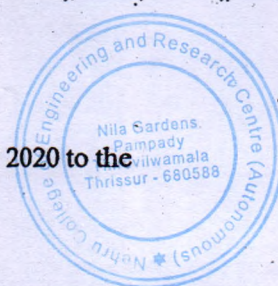
7. Your comments or suggestions, if any

Highly informative

Gained considerable amount of

knowledge

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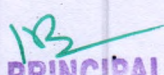
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**FIVE - DAY FACULTY DEVELOPMENT PROGRAM ON:****"IoT APPLICATIONS IN SMART GRID"****Sponsored by****APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY (APJAKTU)****Organized by****Department of Electrical and Electronics Engineering - NCERC****DATE: 17.01. 2023 to 21.01.2023, TIME: 9.30AM - 4.0PM****FDP- Course Co-ordinators****Dr. Sobha Manakkal,****Convener/HoD-EEE****Prof. P. Sundaramoorthi****Co-ordinator**

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4	REGISTRATION FORM
5	ATTENDANCE SHEET
6	SUMMARY OF REPORT
7	FEEDBACK FORMS
8	ANERT VISIT LETTER
9	RESOURCE PERSON - PPT
10	RESOURCE PERSON – CV
11	SAMPLE CERTIFICATE COPY
12	ORIGINAL BILLS




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RE-ACCREDITED BY NAAC "A" GRADE

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(ISO 9001-2015 Certified)

(Approved by AICTE Affiliated to APJ Abdul Kalam Technological University, Kerala)



" FACULTY DEVELOPMENT PROGRAM ON IoT APPLICATIONS IN SMART GRID "

Sponsored by :

A P J ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Organized by :

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



17 - 2023

TO

21 - 2023

8 TO 4 PM

MODE: OFFLINE

@ARYABHATTA SEMINAR HALL



ABOUT INSTITUTION

Nehru College of Engineering and Research Centre (NCERC), a temple of knowledge well known for its dedicated and committed service to the realm of technical education in Kerala, is an ISO 9001:2015 certified institution, approved by the All India Council for Technical Education (AICTE) and is re-accredited by National Assessment and Accreditation Council (NAAC) with "A" grade and NBA accreditation for two undergraduate programs. It is also an approved research center that caters to the needs of higher education and research. The Institution offers six undergraduate programs in engineering and post graduate programs in Cyber Security, VLSI, Computer Science and Engineering and Energy systems apart from Master of Computer Applications and Master of Business Administration. All the departments are headed by well qualified, experienced and committed faculty who are highly professional. International seminars, lectures, workshops, technical exhibitions, co-curricular and extra-curricular activities are organized by the college on a regular basis to enlighten the minds of the student fraternity. With a perfectly designed and absolutely fabulous infrastructure NCERC is a cut above the rest. It is equipped with well-furnished classrooms, modern laboratories, auditoriums, hostels, subsidized canteens, transportation facilities, Wi-Fi connectivity and a modern library with a rich collection of books. With all the modern facilities and a conducive environment for peaceful intellectual activity, NCERC is a sought after place for healthy life, lucid thinking and pleasant learning pursuits. NCERC is now holding year long celebration of 20 year of successful completion.

ABOUT THE DEPARTMENT

As most electrical systems are automatically controlled nowadays, Electrical and Electronics Engineering branch is of considerable importance in present day industrial systems. Emphasis is placed on a thorough exposure to fundamental subjects like Basic Electrical Engineering, Electromagnetic Field Theory and Control Systems. Detailed studies in Electrical Machines, Power Systems, Microprocessors and Microcontrollers are also undertaken. Finally, an exposure is given to Power Electronics, Industrial Drives and Instrumentation Systems. Students have an option to choose a range of electives from VLSI Design to High Voltage Engineering. Industrial study visits and seminars are an integral part of the program. EEE department runs one PG program on Energy Systems, one of its kind in India which is of great relevance in national development through energy management.

DEPARTMENT VISION

To excel in technical education and research in the field of Electrical and Electronics Engineering by imparting innovative engineering theories, concepts and practices to improve the production and utilization of power and energy for the betterment of the Nation.

DEPARTMENT MISSION

To offer quality education in Electrical and Electronics Engineering and prepare the students for professional career and higher studies. To create research collaboration with industries for gaining knowledge about real-time problems. To prepare students with sound technical knowledge. To make students socially responsible.

ABOUT THE COURSE

IoT applications in the renewable energy sector involve sensors that are connected to the generation, transmission, and distribution equipment. These devices can help companies remotely control and monitor the functioning of equipment in real-time, leading to lowered operational costs and lower dependence on the already fast depleting fossil fuels. Smart Grids: Unreliable transmission and distribution systems pose significant bottlenecks to the growth of renewable energy. Traditional energy grids are designed to support the one-way transmission of energy from power plants, billing the customers once a month. They are not adequate to support the variable nature of electricity supply from renewable sources. To put it simply, the dependence of renewable energy on weather conditions cannot be supported by conventional energy grids. IoT has helped to create 'smart grids' that support the manual switching between conservative power plants and renewables to ensure an uninterrupted power supply. This is done with the help of IoT sensors which send triggers during power cuts to facilitate the switching, empowering the smart grids to not only support the mercurial nature of renewable energy but also send a non-stop energy supply to consumers.

CIPANTS

is open to Faculty and Research scholars from institutions recognized affiliated to A P J Abdul Technological University and No Fee will be charged.

ANIZING MITTEE

trons:

Dr. P Krishnadas, Chairman & Managing Trustee, NGI
Krishnakumar, CEO & Secretary, NGI

Ambikadevi Amma T, Principal - NCERC

er:

Sobha Manakkal, Prof & Head/EEE DEPT, NCERC

ener:

Sundaramoorthi, Associate Professor/EEE, NCERC

COURSE OUTLINE

Importance of IoT
Enabled Solar Tree
Development of Smart City
and Renewable Energy
Solutions for Smart Energy

ROBABLE PEAKERS

is will be chaired by Eminent Resource
s from Industry, Research Agencies and
nia with adequate research exposure and
ence in the aforesaid courses.

DATES TO MEMBER

Date: January 17 th to January 21 st 2023
date for online submission: 15 th January 2023
of Confirmation: 16 th January 2023.

ISTRATION

participants are requested to register using the below link or QR Code :
imum participants allowed as per norms: 30
ction basis: First come first serve
ation: By e-mail

<https://bit.ly/FACULTYDEVELOPMENTPROGRAM>



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Nehru College of Engineering and
Research Centre (Autonomous)
Thiruvilwamala, Thrissur



FOR MORE DETAILS:-

Dr. Sobha Manakkal
Prof & Head/EEE, NCERC
MOB:- 9446458522
hodeee@ncerc.ac.in

Prof. P. Sundaramoorthi
Associate Professor/EEE, NCERC,
MOB:- 9544869231
sundaramoorthi.eee@ncerc.ac.in

Prof. David. E .
Assistant Professor/EEE, NCERC
MOB:- 8089588659
davide.eee@ncerc.ac.in



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

RE-ACCREDITED BY NAAC "A" GRADE

Pampady, Thiruvilwamala, Thrissur, Kerala. Pin: 680588

(ISO 9001-2015 Certified)

(Approved by AICTE Affiliated to APJ Abdul Kalam Technological University, Kerala)



FIVE- DAY FDP ON:-

"IoT Applications in Smart Grid"

Sponsored by APJ Abdul Kalam Technological University, Kerala

Organized by

Department of Electrical & Electronics Engineering



JANUARY, 17-21, 2023

TIME: 9.00 AM - 4.00 PM



NAAC
NATIONAL ASSESSMENT AND
ACCREDITATION COUNCIL



MODE: OFF-LINE

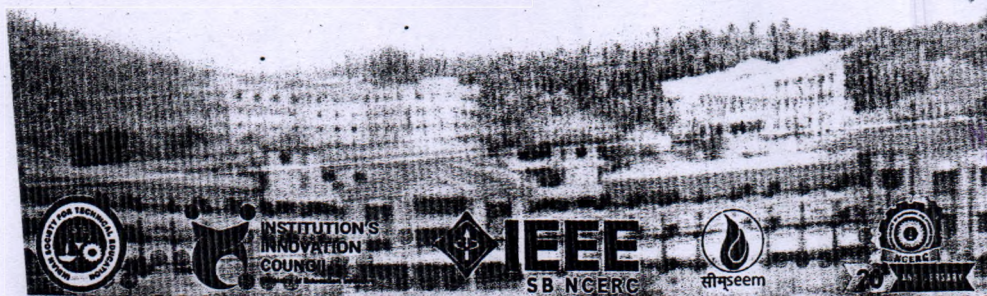
INVITATION

We cordially invite you for the Inaugural and Valedictory Function of APJ Abdul Kalam Technological University Sponsored Five Day FDP on "IoT Applications In Smart Grid" Scheduled between on January 17-21, 2023 at Aryabhatta, Seminar Hall



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Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680588



INAUGURAL PROGRAM SCHEDULE (17.01.2023)

**One minute silent prayer in memory of our Founder Chairman
Late Shri. P.K.Das, followed by Prayer**

Welcome Address	: Dr.Ambikadevi Amma T (Principal, NCERC)
Lightning the Lamp	
Presidential Address	: Adv.Dr.P.Krishnadas (Chairman & Managing Trustee, NGI)
Chief Guest Address	: Dr. M. Murali (Professor- EEE, Power Electronics & IoT Research wing, Sona College of Technology, Salem, Tamilnadu)
Key Note Address	: Dr. P. Krishnakumar (CEO & Secretary, NGI)
Felicitation	: Dr. K.Radhakrishnan (Academic - Advisor, NGI)
Vote of Thanks	: Dr.Sobha Manakkal (HoD - EEE, NCERC)
Technical Session	: Chief Guest

VALEDICTORY PROGRAM SCHEDULE (21.01.2023)

TIME : 03:00 PM

Welcome Address	: Dr.Ambikadevi Amma T (Principal, NCERC)
Presidential Address	: Adv.Dr.P.Krishnadas (Chairman & Managing Trustee, NGI)
Report on the Program	: Dr.Sobha Manakkal (HoD - EEE, NCERC)
Feedback Session	
Certificate Distribution	
Vote of Thanks	: Prof. P. Sundaramoorthi (Co-ordinator)



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Thiruvilwamala, Thrissur - 680588

NEI

Sp

DAY

9.30A

9.35A

9.40A

9.45A

9.50A

9.55A

10.00

10.05

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INAUGURAL CEREMONY & VALEDICTORY FUNCTION OF

FIVE - DAY FACULTY DEVELOPMENT PROGRAM ON:

“IoT APPLICATIONS IN SMART GRID”

Sponsored by APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY (APJAKTU)

Organized by

Department of Electrical and Electronics Engineering – NCERC

DATE: 17.01.2023 to 21.01.2023, TIME: 9.30AM – 4.0PM

VENUE: ARYABHATTA SEMINAR HALL

PROGRAM AGENDA - SESSION DETAILS

DAY 1	(17.01.2023)	
9.30AM - 9.35AM	Prayer	
9.35AM - 9.40AM	Welcome Address	Dr. Ambika Devi Amma T Principal, NCERC
9.40AM - 9.45AM	Lightning the Lamp	
9.45AM - 9.50AM	Presidential Address	Adv. Dr. P. Krishnadas Chairman & Managing Trustee, NGI
9.50AM - 9.55AM	Chief Guest Address	Chief Guest Address Dr. Murali M Professor/EEE Power Electronics & IoT Research Wing Sona College of Technology-Salem
9.55AM - 10.00AM	Key Note Address	Dr. P. Krishnakumar CEO & Secretary, NGI
10.00AM - 10.05AM	Felicitation Address	Dr. Radhakrishnan Academic – Advisor, NGI
10.05AM - 10.10AM	Vote of Thanks	Dr. Sobha Manakkal



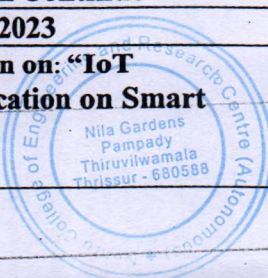
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		HoD - EEE, NCERC
10.10AM - 10.20AM	Tea Break	
10.20AM - 12.30PM	Session on: "Energy storage techniques and their future challenges in Smart Grid"	Dr. Murali M Professor/EEE Power Electronics & IoT Research Wing Sona College of Technology-Salem
12.30PM - 1.0PM	Lunch Break	
1.0PM - 3.0PM	Session on: "Applications of IoT in Energy storage systems"	Dr. Murali M Professor/EEE Power Electronics & IoT Research Wing Sona College of Technology-Salem
Tea Break (3.0PM - 3.10PM)		
3.10PM - 4.10PM	Session Continue	
DAY-2	18.01.2023	
9.10AM - 11.10AM	Session on: "Grid connected multilevel inverter for renewable energy applications"	Prof. P. Sundaramoorthi Associate Professor - EEE Nehru College of Engg & Research Centre (NCERC)-Pampady
11.10AM - 11.20AM	Tea Break	
11.20AM - 12.20PM	Session Continue	
12.20PM - 12.50PM	Lunch Break	
12.50PM - 2.50PM	Session on: "IoT using LoRaWAN technology"	Er. Syed Ibrahim Technical Lead Enthu Technology Solutions India Pvt Ltd
2.50PM - 3.0PM	Tea Break	
3.0PM - 4.0PM	Session Continue	
DAY-3	19.01.2023	
9.10AM - 11.10AM	Session on: "IoT Application on Smart Grid"	Dr. P. Soundar Rajan Professor-EEE PSNA College of Engg & Tech, Dindigul



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Dr. P. Soundar Rajan
Professor-EEE
PSNA College of Engg & Tech, Dindigul



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11.10AM – 11.20AM	Tea Break	
11.20AM – 12.20PM	Session Continue	
12.20PM – 12.50PM	Lunch Break	
12.50PM – 2.50PM	Session on: “IoT with Matlab/Simulink”	Dr. I. Gerold Christopher Raj Professor-EEE PSNA College of Engg & Tech, Dindigul
2.50PM – 3.0PM	Tea Break	
3.0PM – 4.0PM	Session Continue	
DAY-4	20.01.2023	
9.10AM – 11.10AM	Session on: “Hands on IoT using firebase and Node - Red”	Dr. S. Meenatchi Sundaram Associate Professor-ICE Manipal Institute & Tech, Manipal
11.10AM – 11.20AM	Tea Break	
11.20AM – 12.20PM	Session Continue	
12.20PM – 12.50PM	Lunch Break	
12.50PM – 2.50PM	Session on: “IoT in Smart Grid (challenges and solutions)”	Dr. D. Vijayakumar Professor-ECE CMR College of Engg & Tech, Hyderabad
2.50PM – 3.0PM	Tea Break	
3.0PM – 4.0PM	Session Continue	
DAY-5	21.01.2023	
9.10AM – 2.0PM	Industrial Visit on 2MW Solar Power Plant at Kuzhalmannam – ANERT Government of Kerala	
2.0PM – 3.0PM	Valedictory Function	
3.0PM – 3.30PM	Feedback Session	
3.30PM – 4.0PM	Certificate Distribution & Vote of Thanks	

P. P. S. S. S.
Co-ordinator



G. M.
Convener/HoD-EEE



[Signature]
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Pin - 680 597, Kerala

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Thiruvilwamala, Thrissur - 680588

PARTICIPANT LIST

Timestamp	Name	KTU ID	Designation	Gender	Institution Name	Institution Address	Email ID	Mobile Number
1-10-2023 11:15:35	Susmitha P	KTU-F43103	Assistant Professor	Female	Sreepathy Institute of Management And Technology	Vavanor, Kootanad(po), Pattambi	susmitha.p@smat.ac.in	9805731073
1-10-2023 11:15:56	Saranya K P	KTU-F43385	Assistant Professor	Female	Sreepathy Institute of Management and Technology	Vavanor, Kootanad po, Pattambi	saranya.kp@smat.ac.in	9947477080
1-10-2023 11:18:38	HASEENA P	KTU-F2303	Assistant Professor	Female	Jawahar College of Engineering and Technology	Jawahar Gardens, Lakkidi, Mangalam, Ottapalam, Kerala 679301	haseena@jawaharcolleges.com	9281279616
1-10-2023 16:45:20	FARIS KK	KTU-F5411	Associate Professor	Male	AL AMEEN ENGINEERING COLLEGE, KULAPPULLY	KULAPPULLY, SHORANUR-2, PALAKKAD	vpzfaris@gmail.com	9946662603
1-10-2023 18:39:13	Dr. JOHN CHEMBUKKAVU	KTU-F6709	Head of Department	Male	IES COLLEGE OF ENGINEERING	CHITTILAPILLY	eeehod@iesce.info	+919447808065
1-10-2023 18:54:19	Aneesh S	KTU-F39941	Assistant Professor	Male	IESCE	Chengamkode	aneeshswaminathan1198@gmail.com	+918075364525
1-10-2023 19:13:19	THANZEELA MOLA	KTU-F5033	Associate Professor	Female	Al Ameen Engineering College, Shoranur	Al Ameen Engineering College, Shoranur-2, palakkad	thanzeela.a@gmail.com	9895409823
1-11-2023 9:36:37	SETHULAKSHMI S	KTU-F6896	Associate Professor	Female	AL AMEEN ENGINEERING COLLEGE	Al Ameen engineering college, kulappully, shoranur -2	sethulakshmi.sivan@yahoo.co.in	9744138381
1-11-2023 9:44:15	Rachel Steina Angeline A	KTU-F44072	Assistant Professor	Female	Nehru College of Engineering and Research Centre	Pampady, Thrissur	rachel1955.ece@ncerc.ac.in	8848196843
1-11-2023 14:09:52	P. Rajkumar	KTU-F1836	Assistant Professor	Male	Nehru College of Engineering and Research Centre	Nila Gardens, Lakkidi Railway Stn, Pampady, TW-680588, TCR district	Rajkumar.p@ncerc.ac.in	9746366196
1-11-2023 15:31:11	Sangeetha V	KTU-F43670	Assistant Professor	Female	Rajedhani Institute of Science and Technology	Rajedhani Institute of Science and Technology, Mankara, Palakkad, 678613	sangeetha.v@rist.edu.in	7510628911
1-11-2023 16:34:49	NEETHU M	KTU-F20027	Assistant Professor	Female	NCERC	NCERC, pampady	neethu.ncerc1234@gmail.com	9597352601
1-12-2023 8:44:57	Midhunraj P K	KTU-F20033	Assistant Professor	Male	NCERC	Pampady, Thrissur	midhunrajmease@gmail.com	7293341833
1-14-2023 7:53:08	ASMABI V	KTU-F26725	Associate Professor	Female	AL-AMEEN ENGG COLLEGE SHORNUR		asmabiv@gmail.com	9496613624
1-16-2023 9:42:39	JISHA K V	KTU-F2352	Assistant Professor	Female	JCET	Mangalam p o, lakkidi	jsayan@gmail.com	9495761592
1-16-2023 9:42:51	Savana M	KTU-F2466	Assistant Professor	Female	Jawahar College of Engineering and Technology	Jawahar gardens, lakkidi	savanam@jawaharcolleges.com	9633372869
1-16-2023 15:47:32	REMYA K V	KTU-F4641	Associate Professor	Female	ALAMEEN ENGG COLLEGE	Kulappully	mareenaremya@gmail.com	08921695283
1-16-2023 22:12:06	Abdul Vahab P A	KTU-F26722	Assistant Professor	Male	Al Ameen Engineering college	Kulappully	pa.vahab@gmail.com	9895395201
1-16-2023 11:02:58	Rejumon R	KTU-F20023	Assistant Professor	Male	NCERC	Pampady	reumon34@gmail.com	09995895569
1-16-2023 11:21:02	MAHESWARAN K	KTU-F2088	Assistant Professor	Male	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE	Pampady	maheswarankncerc1@gmail.com	9944113271
1-15-2023 11:21:17	NIVETH L	KTU-F1763	Assistant Professor	Male	Nehru College of Engineering and Research Centre	Pampady, Thrissur	nivethilakshman5@gmail.com	7736190721
1-14-2023 11:23:16	ANOOP KUMAR M. V	KTU-F1985	Assistant Professor	Male	NCERC	Pampady	anoopkumar.eee@ncerc.ac.in	8075074924
1-13-2023 11:02:36	Muruganatham	KTU-F41792	Assistant Professor	Male	NCERC	Pampady	muruganatham.ece@ncerc.ac.in	9037201994
1-14-2023 11:23:18	Dr. Sivakumar K	KTU-F44051	Vice-Principal	Male	NCERC	Pampady	rksivakumar@gmail.com	9944881639
1-16-2023 12:12:06	Dr. Anshad A S	KTU-F13226	Vice-Principal	Male	MCET	Desamangalam	dr.anshadas@gmail.com	9895923654
1-16-2023 10:21:02	Shilja S	KTU-F15990	Assistant Professor	Female	MCET	Desamangalam	shilja86@gmail.com	9048613773
1-15-2023 10:21:02	Rashmi V R	KTU-F39525	Assistant Professor	Female	MCET	Desamangalam	rv2311@gmail.com	9544655804
1-14-2023 11:21:02	Anooja B.	KTU-F13233	Assistant Professor	Female	MCET	Desamangalam	anoojabadan11@gmail.com	9846132862
1-15-2023 12:12:06	Shanoob T H	KTU-F13221	Assistant Professor	Male	MCET	Desamangalam	shanoobhanefa@gmail.com	9995167262
1-16-2023 10:12:06	Kamarudheen M M	KTU-F38936	Assistant Professor	Male	MCET	Desamangalam	kamarudheenmm009@gmail.com	9539282416

Co-ordinator

Convener/HoD-EEE

Principal

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Nehru College of Engineering and Research Centre
Pampady, Thrissur

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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY SPONSORED FDP ON

"IoT APPLICATIONS IN SMART GRID"

JANUARY 17th - 21st, 2023

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

REGISTRATION FORM

Name : *Dr. JOHN. CHEMBUKKAVU*
Designation : *HOD*
Department : *EEE*
Teaching Experience (in years) : *15*
Industrial Experience (in years) : *2*
College Name & Address : *IES college of Engineering*
Chittilappilly. PO
Thrissur - 680551
Mobile No : *9447808065*
Email Id : *eee.hod@iesce.info*

DECLARATION OF APPLICANT

I hereby declare that I have read all the instructions mentioned in the FDP brochure and agree to them. Also, the details furnished above are true to the best of my knowledge. If selected, I shall attend the course for the entire duration.

Place: *Chittilappilly*
Date: *13/1/23*

Signature of the Applicant

ENDORSEMENT BY AUTHORITY

I recommend that Dr./Mr./Ms./Mrs.*JOHN. CHEMBUKKAVU*..... is an employee of our Institute and he/she is permitted to attend the Five days FDP on IoT Applications in Smart Grid, if selected.

Place: *Chittilappilly*
Date: *13/1/23*

Signature of the Head of the Institution

(Institute Seal)



Dr. S. BRILLY SANGEETHA
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IES COLLEGE OF ENGINEERING
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THRISUR - KERALA

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APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY SPONSORED FDP ON

"IoT APPLICATIONS IN SMART GRID"

JANUARY 17th - 21st, 2023

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

REGISTRATION FORM

Name : ANEESH S.
Designation : AP
Department : EEE
Teaching Experience (in years) : 5 years.
Industrial Experience (in years) : NIL
College Name & Address : IES College of Engineering,

Mobile No : 8075364525
Email Id : aneeshs@iesee.info

DECLARATION OF APPLICANT

I hereby declare that I have read all the instructions mentioned in the FDP brochure and agree to them. Also, the details furnished above are true to the best of my knowledge. If selected, I shall attend the course for the entire duration.

Place: CHITTILAPPILLY

Date: 13/1/2023

Ash
Signature of the Applicant

ENDORSEMENT BY AUTHORITY

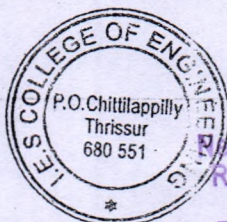
I recommend that Dr./Mr./Ms./Mrs. ANEESH S. is an employee of our Institute and he/she is permitted to attend the Five days FDP on IoT Applications in Smart Grid, if selected.

Place: THRISSUR

Date: 13/1/2023

[Signature]
Signature of the Head of the Institution

(Institute Seal)



[Signature]
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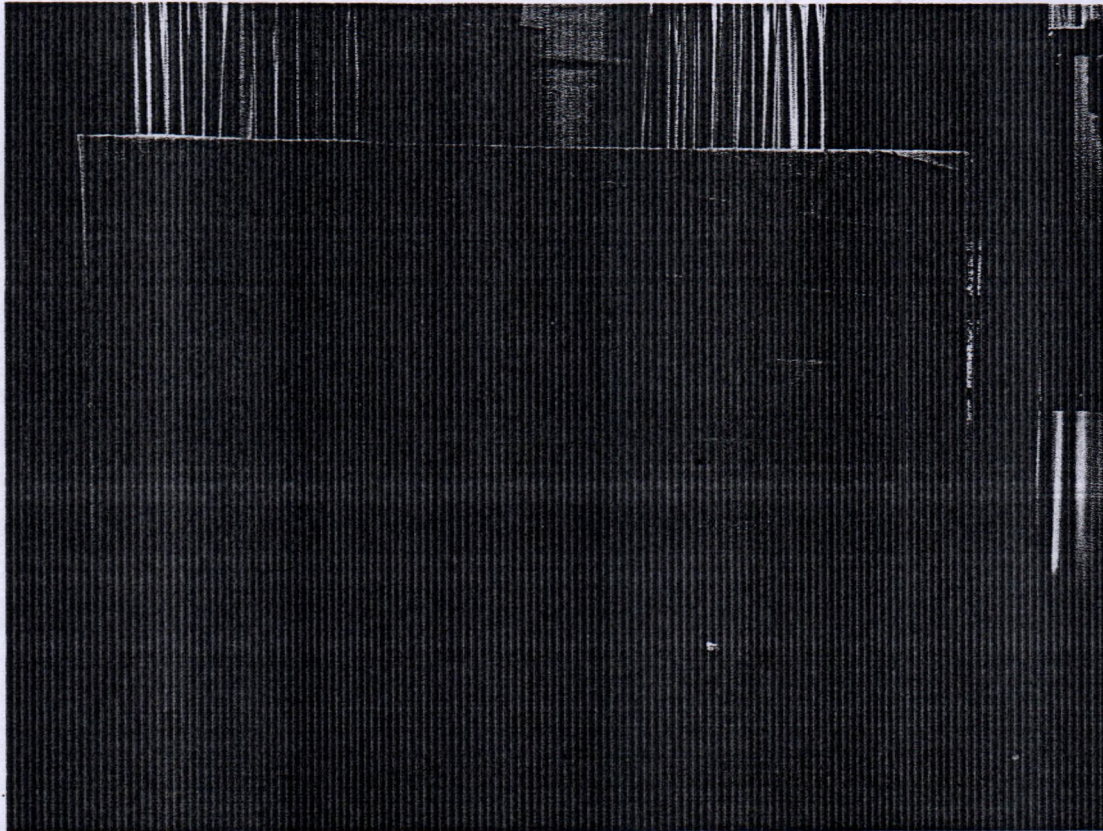
Dr. S. S. RILEY SANGEETHA
PRINCIPAL
IES COLLEGE OF ENGINEERING
CHITTILAPPILLY - 680551
THRISSUR - KERALA

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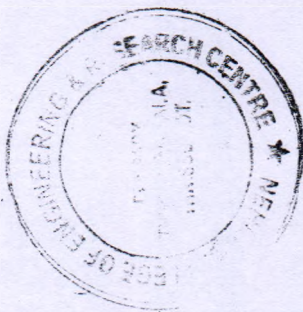
DATE: 17TH JANUARY to 21ST JANUARY 2023

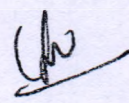
Day 1: 17th January 2023

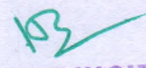
Program: Inaugural Ceremony (9.30am-10.30am)



Flex inside the Conference Hall




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- 680 588, Kerala


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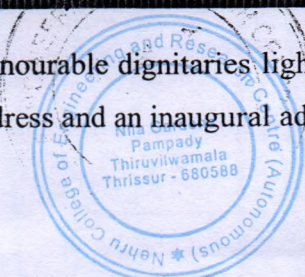
DATE: 17TH JANUARY to 21ST JANUARY 2023



The participants reach the college by 9am, and they collected the kit along with the program schedule



The most honourable dignitaries light the lamp and inaugurated the session followed by a welcome address and an inaugural address.



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FACULTY DEVELOPMENT PROGRAM ON IoT APPLICATIONS IN SMART GRID

DATE: 17TH JANUARY to 21ST JANUARY 2023

Tea Break: 10.30am to 10.45am

Session 1: 17/1/2023(FN)

Resource Person: Dr. Murali M

Professor, Sona College of Technology

Salem, Tamilnadu

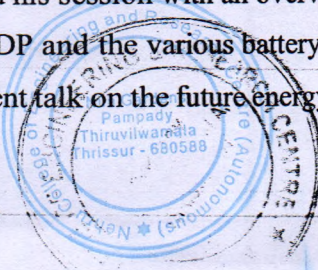
Topic: Energy storage and its future challenges

Venue: Aryabhata seminar hall, NCERC, Pampady

Time: 10.45 am to 12.45pm



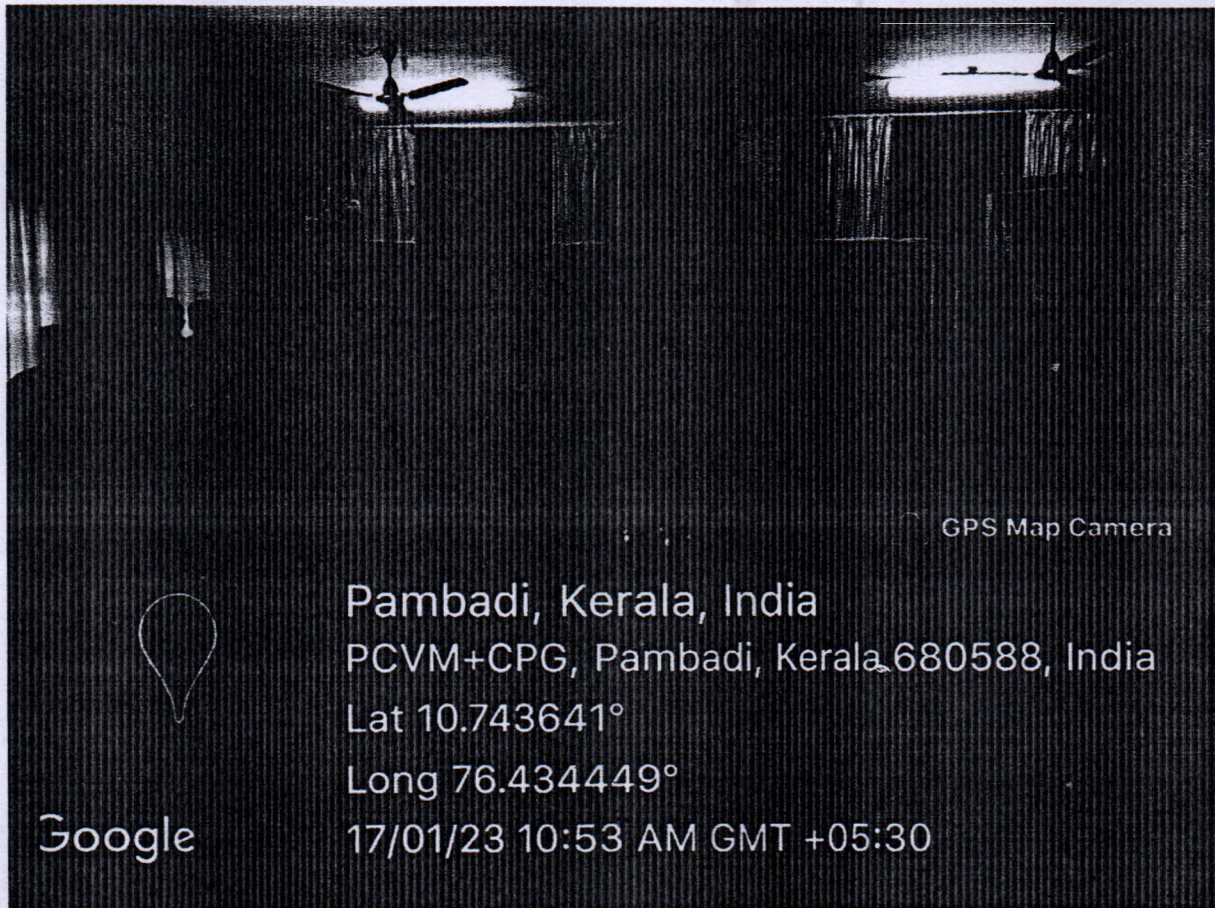
He started his session with an overview about the importance of energy storage systems, need for this FDP and the various battery based energy storage systems and their benefits. He gave an excellent talk on the future energy storage systems, along with that he asked the participants



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to undergo a research work on battery based energy storage systems (BESS) as a Ph.D work in KTU. The participants were really happy after his speech.



Group Photo after first session

LUNCH BREAK: 12.30pm-1.00pm

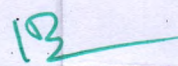
Session 2: 17/1/2023(AN)

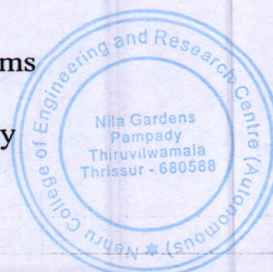
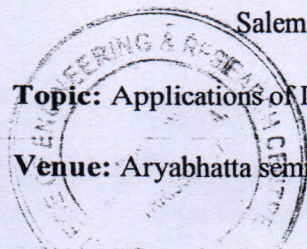
Resource Person: Dr. Murali M

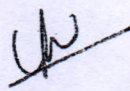
Professor, Sona College of Technology
Salem, Tamilnadu

Topic: Applications of IoT in Energy storage systems

Venue: Aryabhata seminar hall, NCERC, Pampady


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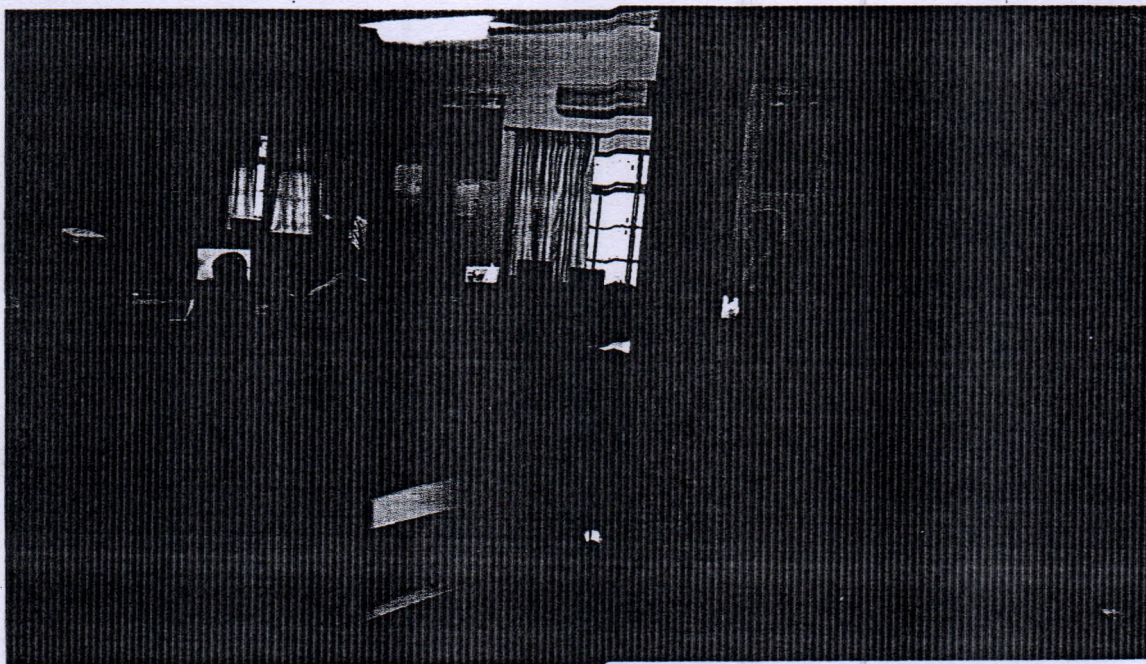



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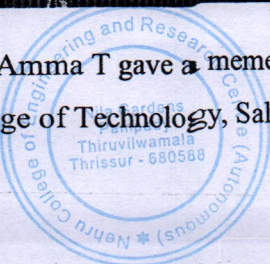
Time: 1.00 pm to 4.00 pm



Dr. Murali discussed the applications of IoT in energy storage systems in the present day scenario and explained its role. Following that, he explained the different converters involved in improving the micro grid and their impact over the storage systems. He also discussed the various intelligent control modules, sensing communication methods etc.



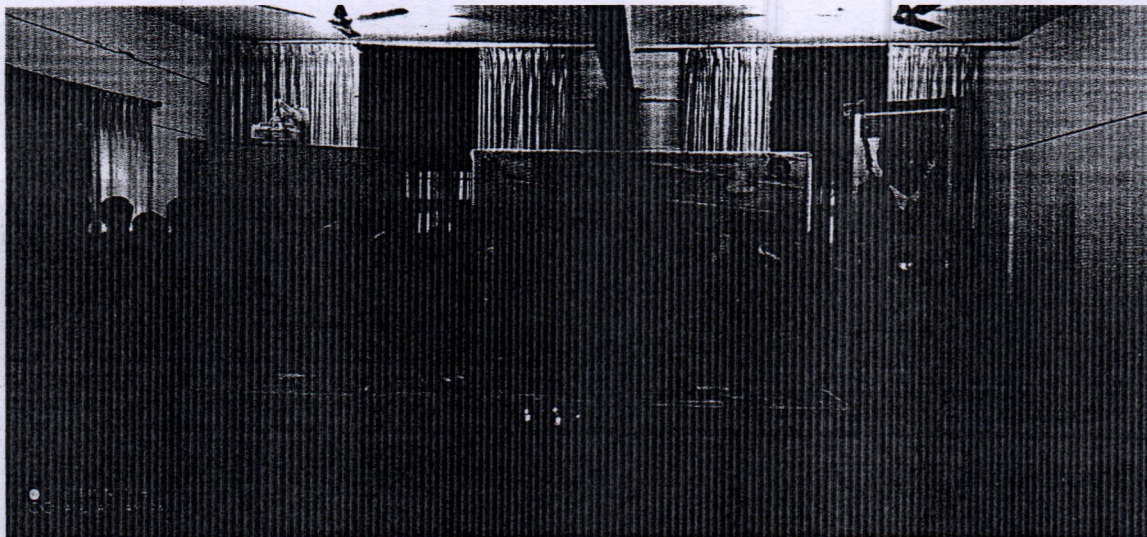
Our Principal, Dr. Ambikadevi Amma T gave a memento to honour our respected chief guest Dr. Murali, Professor, Sona College of Technology, Salem, Tamilnadu.



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Group Photo at the end of Session 2

Day 2: 18th January 2023

Session 3: 18/1/2023(FN)

Resource Person: Prof. Sundaramoorthi P

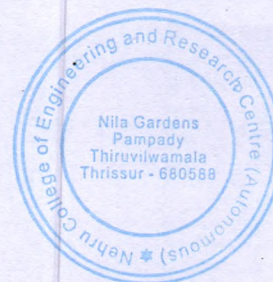
Associate Professor

EEE Department, NCERC

Topic: Grid Connected Multilevel Inverter for Renewable Energy Applications

Venue: Advanced Computing Lab Aryabhata Block, NCERC, Pampady

Time: 9.30am to 12.30pm



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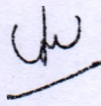
DATE: 17TH JANUARY to 21ST JANUARY 2023



Prof. Sundaramoorthi P discussed about the integration of renewable energy sources with the grid playing an important role in energy utilization. It is difficult to utilize electricity from renewable energy sources directly for the injection of power into the grid. Hence the system need power electronic converters as an interface between renewable energy sources and grid/load. He also discussed about the various multilevel inverter topologies, integration of three phase six level voltage source inverter into the grid system with Matlab simulation as a hands on training, THD reduction, controllers and algorithms implemented to improve the operation of these MLI.

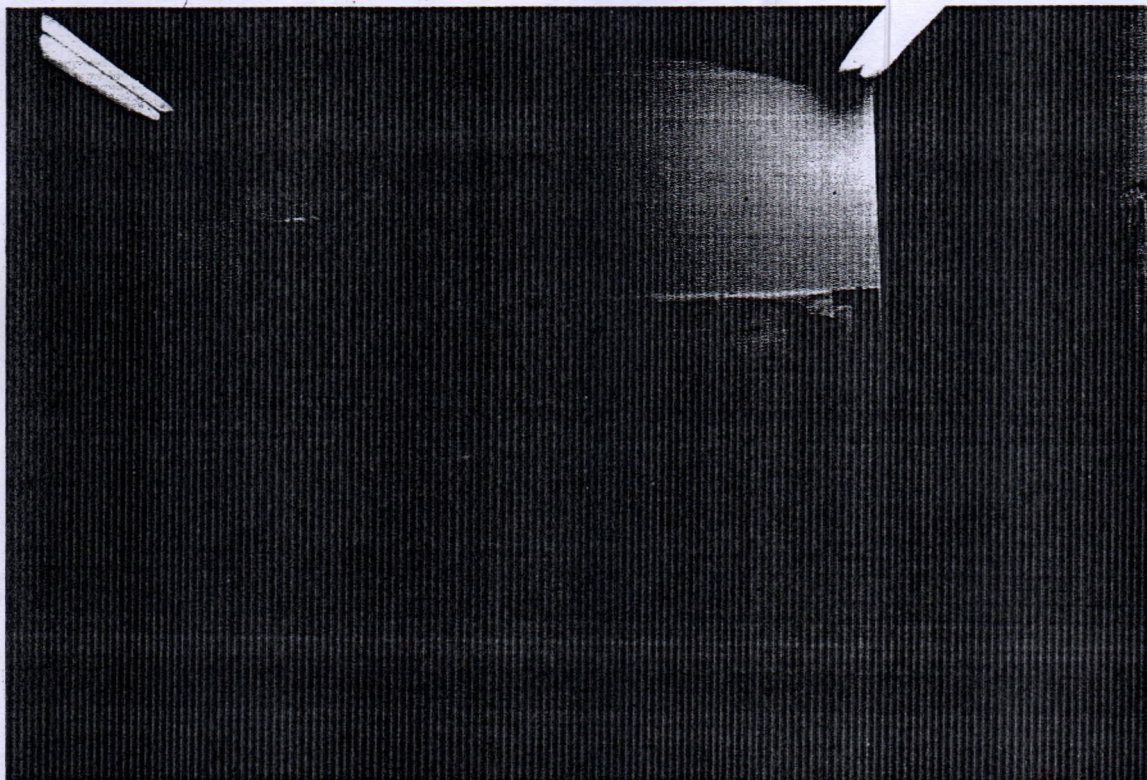


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DATE: 17TH JANUARY to 21ST JANUARY 2023



Group photo after Session 3

Session 4: 18/1/2023(AN)

Resource Person: Er. Syed Ibrahim

Technical Lead

Enthu Technology Solutions India Pvt Ltd

Topic: IoT using LoRaWAN Technology

Venue: Advanced Computing Lab Aryabhata Block, NCERC, Pampady

Time: 1.00pm to 4.00pm



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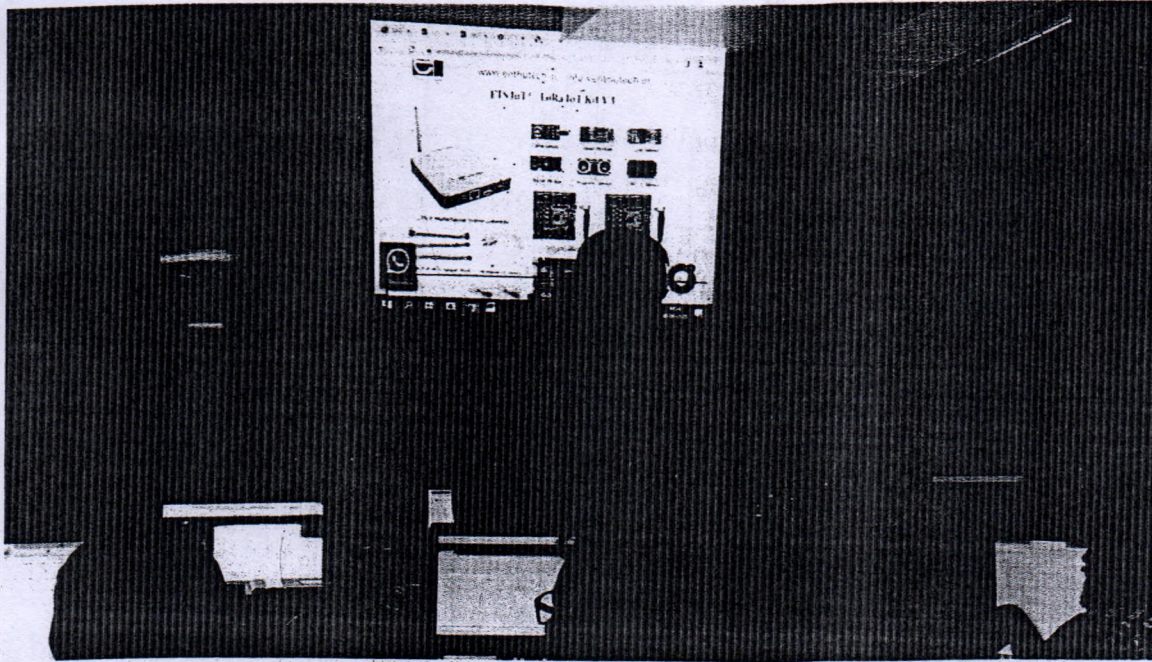


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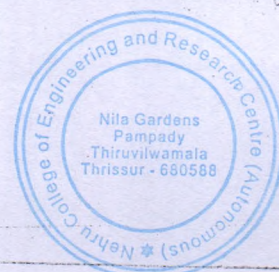


Er. Syed Ibrahim, discussed about the ESP32, Arduino IDE & Arduino programming ESP32 library installation, LoRaWAN architecture, communication protocols and IoT cloud platform. He also delivered a hands on training on integration of LED with WDM, IR sensors with WDM, water pressure monitoring, weather monitoring with cloud systems (temperature, pressure, humidity, wind direction, solar radiation etc.). He also explained the various sensors with ETS-IoT WDM board specifications.



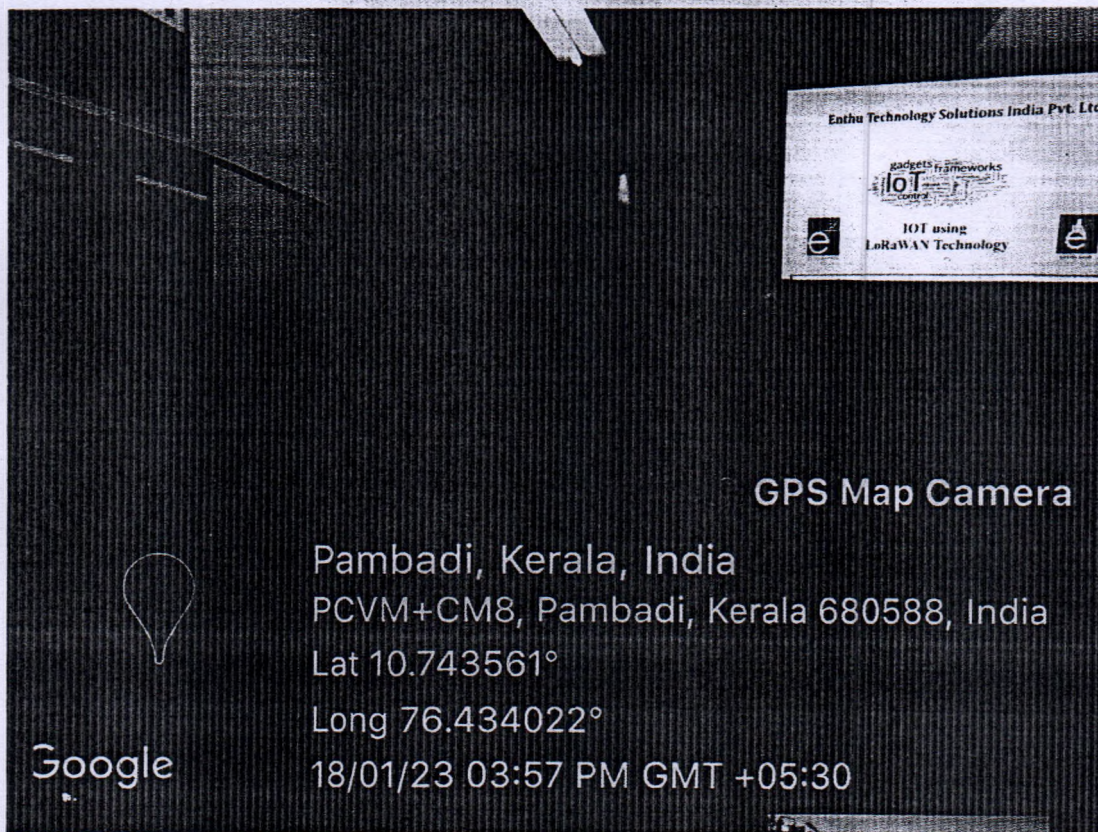
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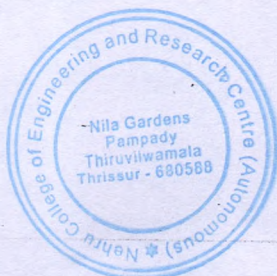
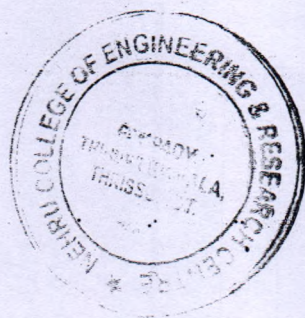


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Group Photo at the end of the session 4.



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DATE: 17TH JANUARY to 21ST JANUARY 2023

Day 3: 19th January 2023

Session 5: 19/1/2023(FN)

Resource Person: Dr. Soundar Rajan

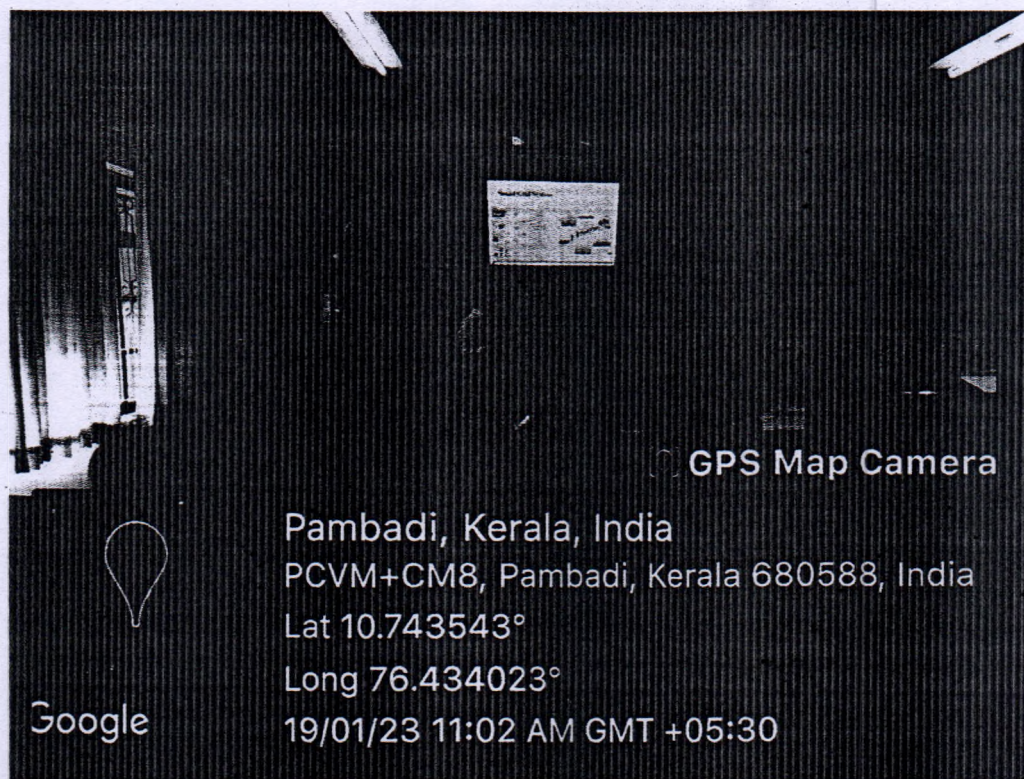
Professor, EEE Dept.

PSNA College of Engineering & Technology, Dindigul

Topic: Internet of Things in Smart Grid

Venue: Advanced Computing Lab, Aryabhata Block, NCERC, Pampady

Time: 9.30am to 12.30pm



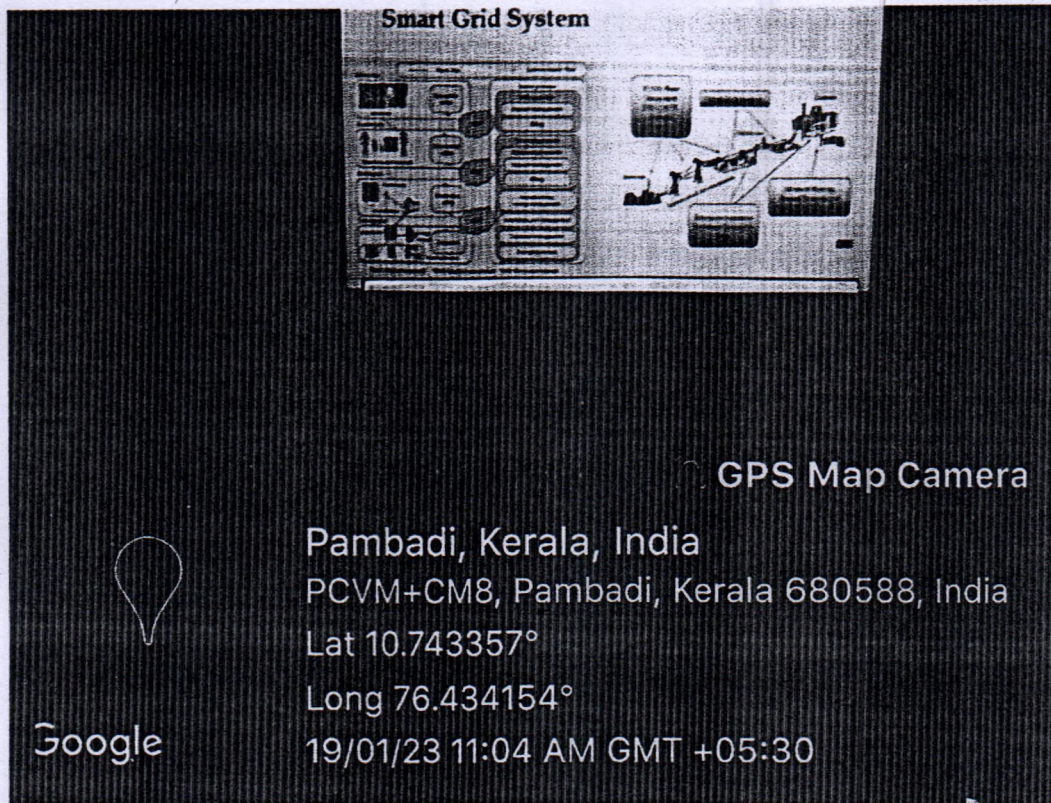
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Prof. Soundar Rajan, explained how the IoT can be used in controlling and monitoring the smart grid. He also explained how energy management is performed.

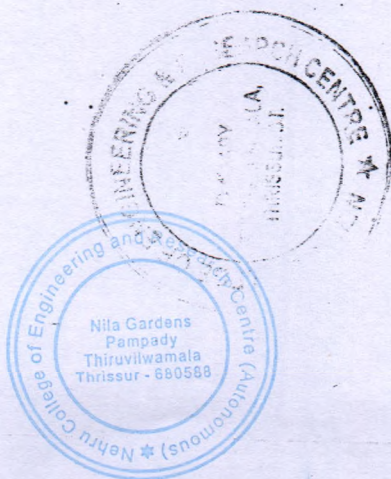
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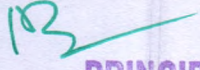
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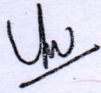
DATE: 17TH JANUARY to 21ST JANUARY 2023



He also gave a detailed lecture on different types of clouds and discussed problems in smart grid without cloud, its features, IoT information management systems etc. Also, he discussed introducing cloud data warehouse applications in smart grid, research challenges in control algorithms and flowchart approach.

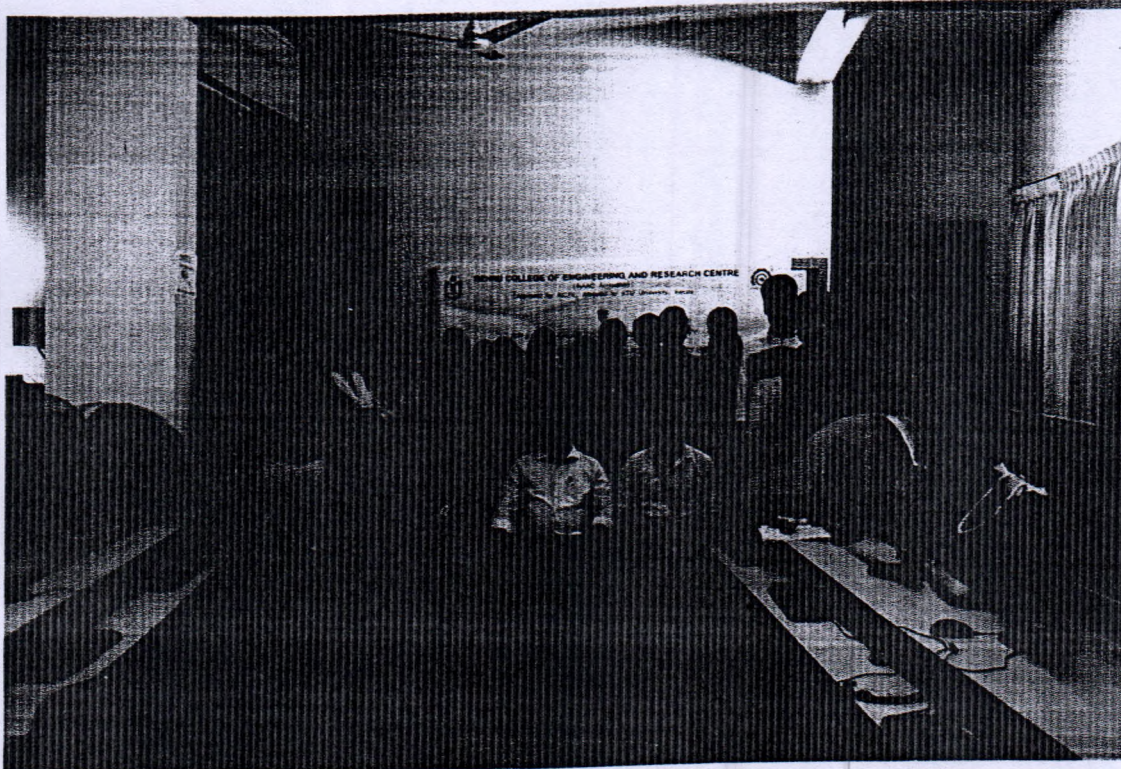



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Group photo after morning session 5.

Session 6: 19/1/2023(AN)

Resource Person: Dr. Gerald Christopher Raj. I

Professor, EEE Department

PSNA College of Engineering and Technology, Dindigul

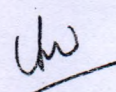
Topic: IoT with Matlab- Simulink.

Venue: Advanced Computing Lab, Aryabhata Block: NCERC, Pampady

Time: 1.00pm to 4.00pm



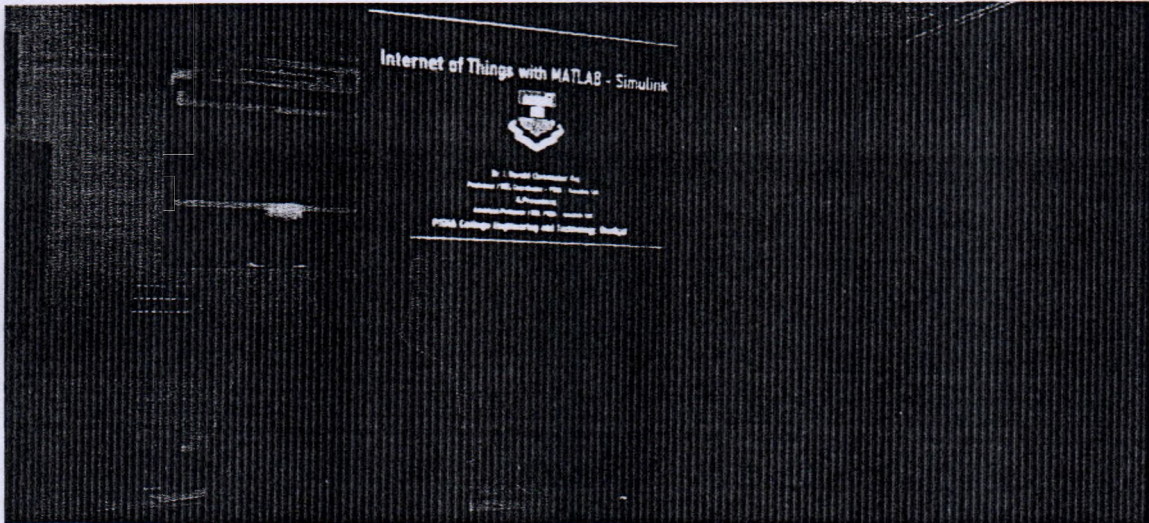

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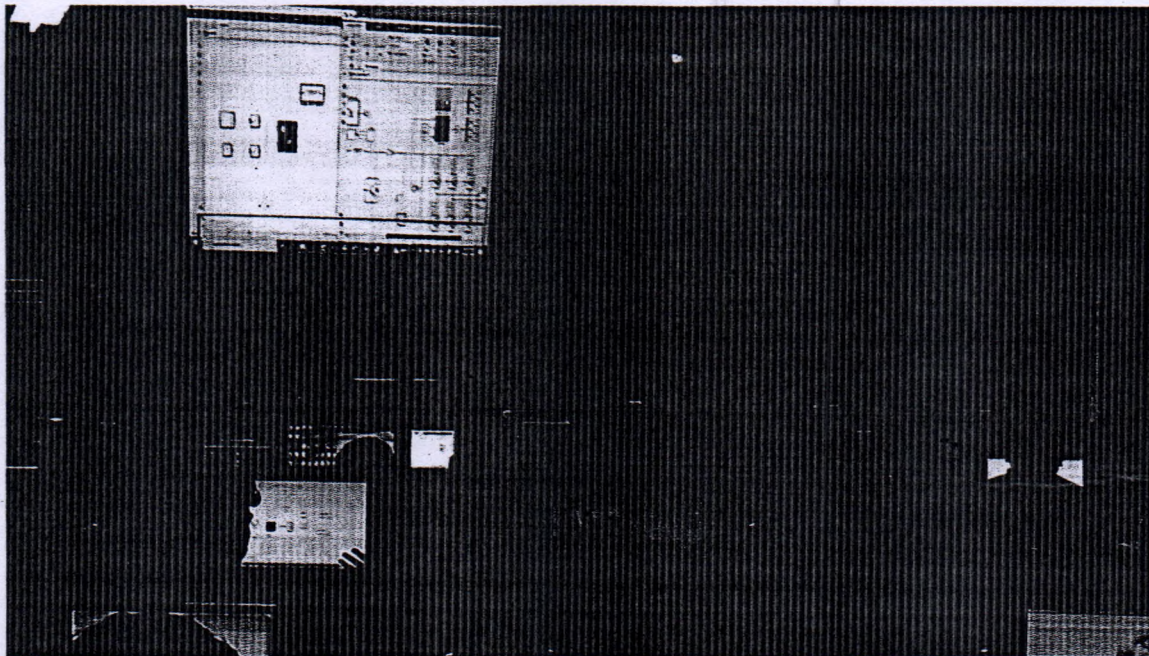


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Prof. Gerald Christopher Raj I, handled an interactive session on Internet of Things with Matlab-Simulink. He explained how grid connected PV systems is used to generate electricity and different types (ON grid/OFF grid).



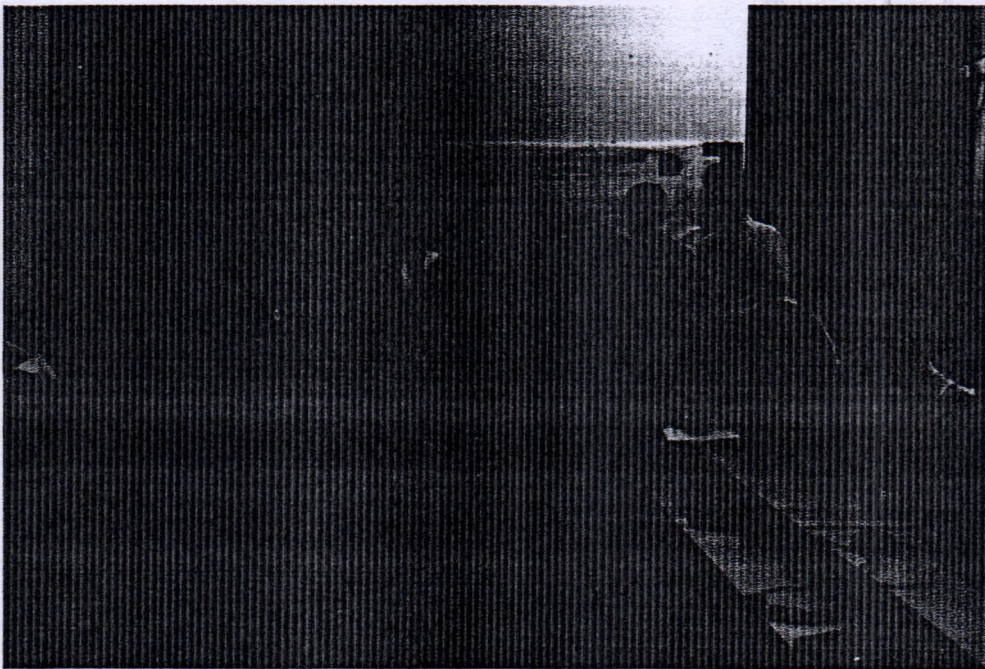
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He conducted a hands on training in Matlab with arduino package which has to be configured in arduino hardware communicated via USB by splitting the participants into batches. The participants understood learning of programming using arduino package using Matlab. He also discussed few case studies related to simulink model for arduino hardware.



Group Photo at the end of the session 6.

Day 4: 20th January 2023

Session 7: 20/1/2023(FN)

Resource Person: Dr. S.Meenatchi Sundaram

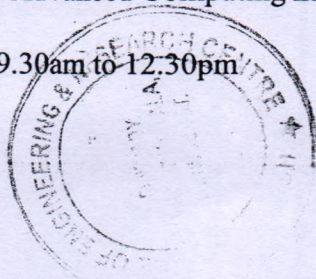
Professor, ICE Department

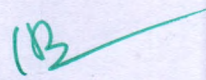
Manipal Institute of Technology, Manipal

Topic: Hands on IoT using Firebase and Node-Red

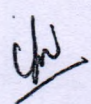
Venue: Advanced Computing Lab Aryabhata Block, NCERC, Pampady

Time: 9.30am to 12.30pm



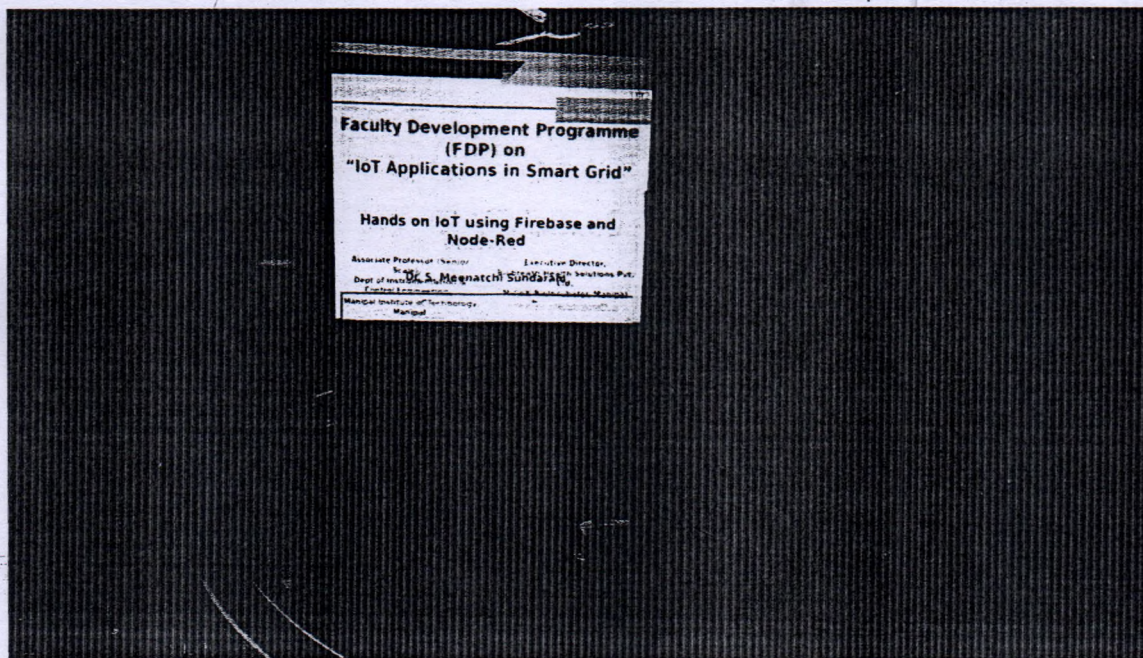

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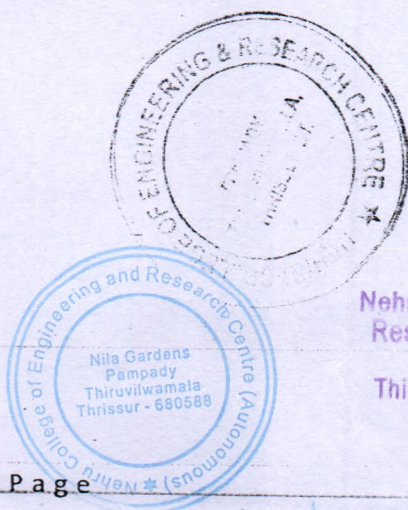

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Dr. S. Meenatchi Sundaram, started the session with the basic concept of IoT using firebase and node-red. He explained interfacing of Arduino NodeMCU device with Google Firebase database and by using Android applications. The participants learned how to send data to Firebase to control an LED. He shared more information about Google Firebase database in real-time applications.

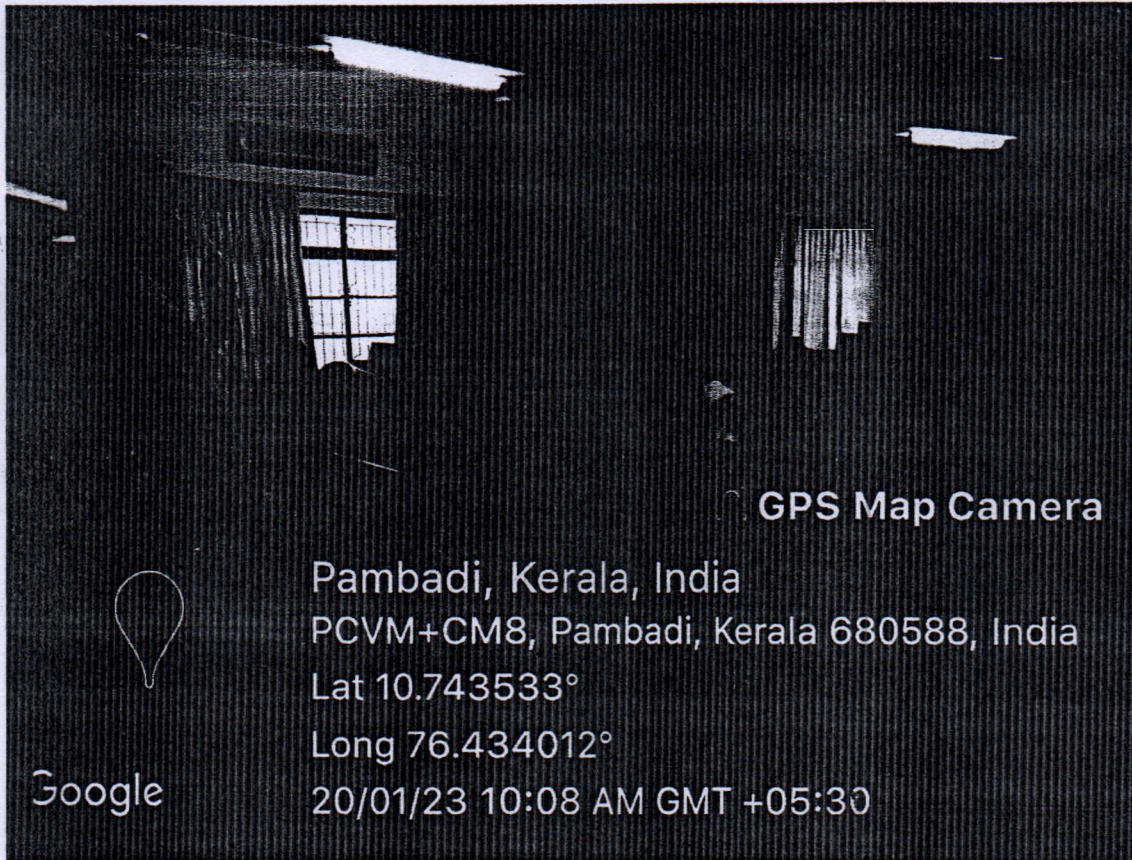


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Also, he discussed about IIoT(industrial internet of things) concept for data management connectivity, data security and secure cloud platform applications in industrial sector.

Session 8: 20/1/2023(AN)

Resource Person: Dr. D. Vijaya Kumar

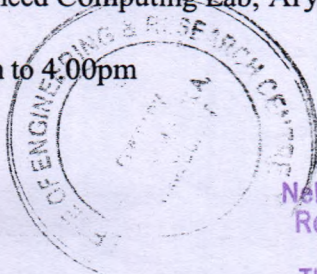
Professor, ECE Department

CMR College of Engineering, Hyderabad

Topic: IoT in Smart Grid

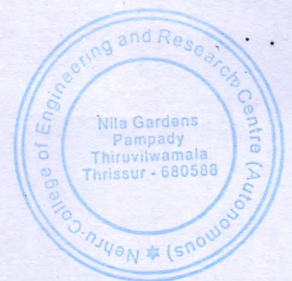
Venue: Advanced Computing Lab, Aryabhata Block, NCERC, Pampady

Time: 1.00pm to 4.00pm



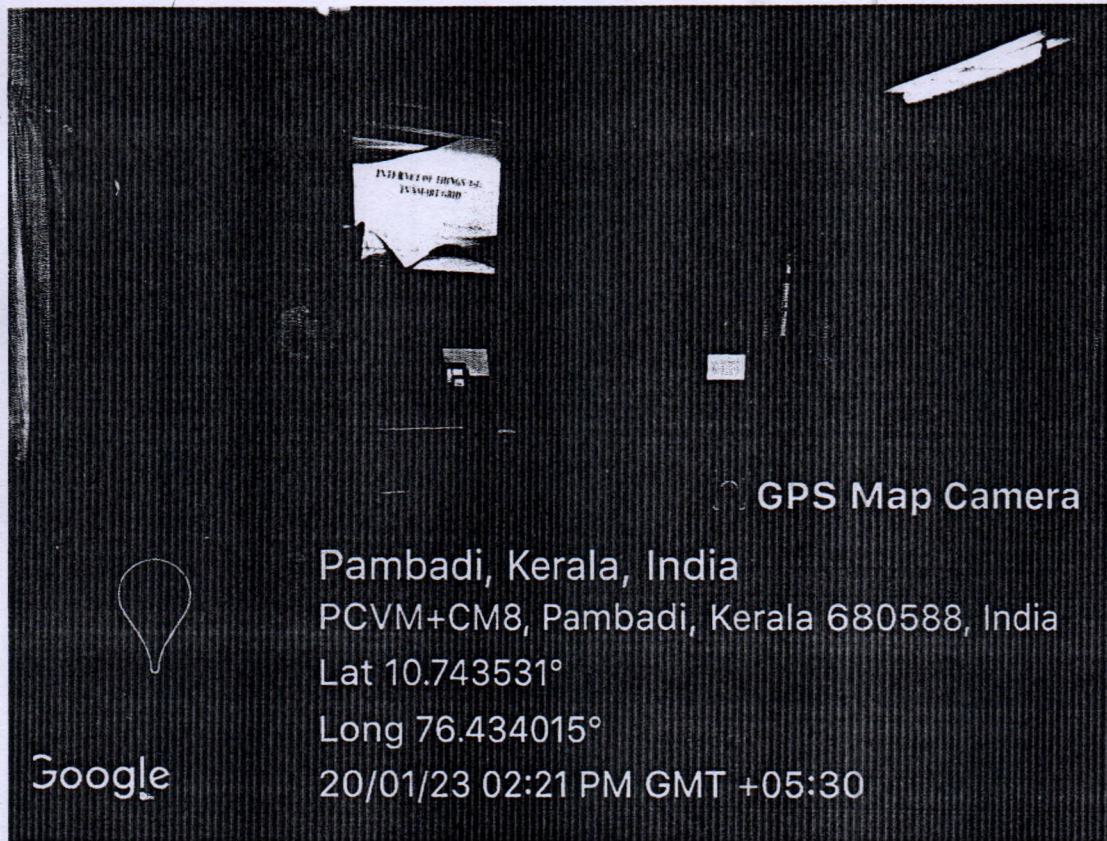
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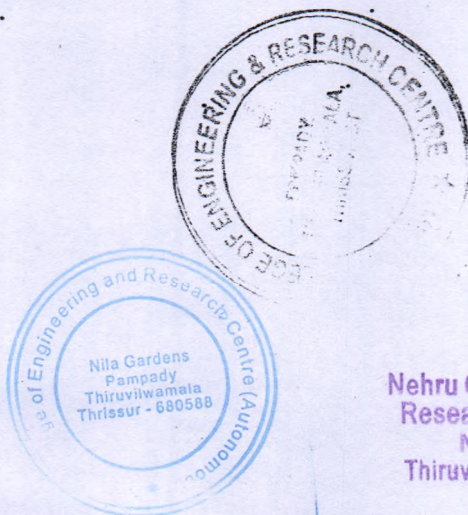


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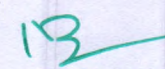
DATE: 17TH JANUARY to 21ST JANUARY 2023



Dr. D. Vijaya Kumar, started his session discussing innovativeness of smart mirror systems. He gave a brief intro about the evolution of electrical grids from traditional to smart grids, distribution network integration with IoT etc.. He sketched the layout of cyber-attacks in IoT enabled smart grid systems, research opportunities and business growth combining big data & block chain techniques.

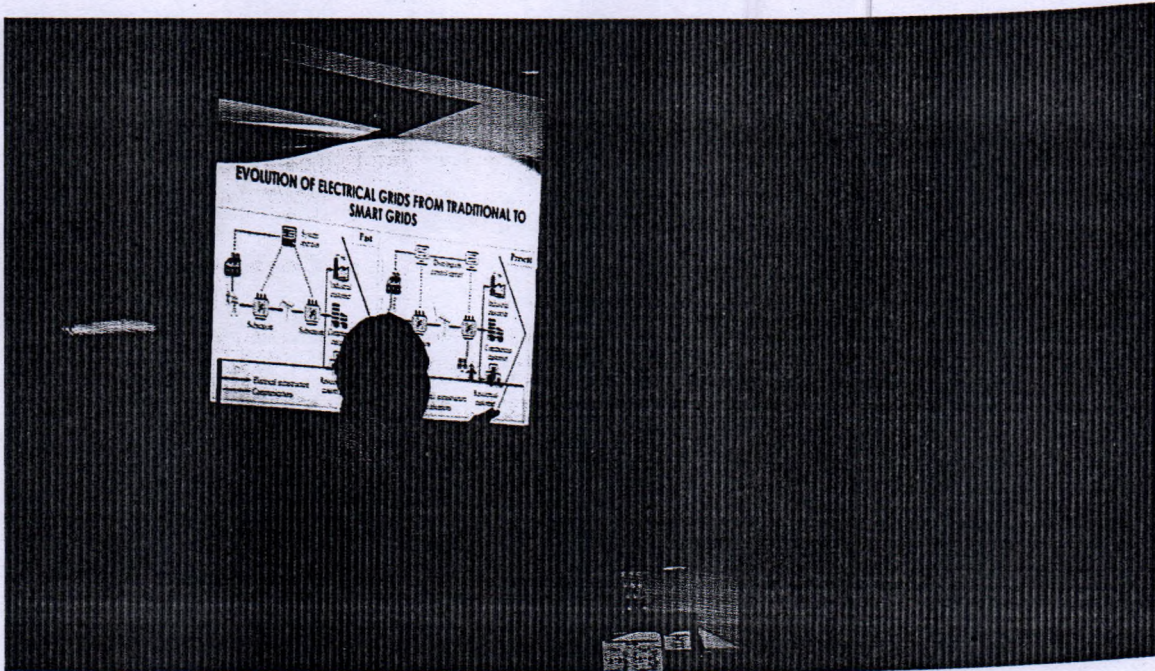



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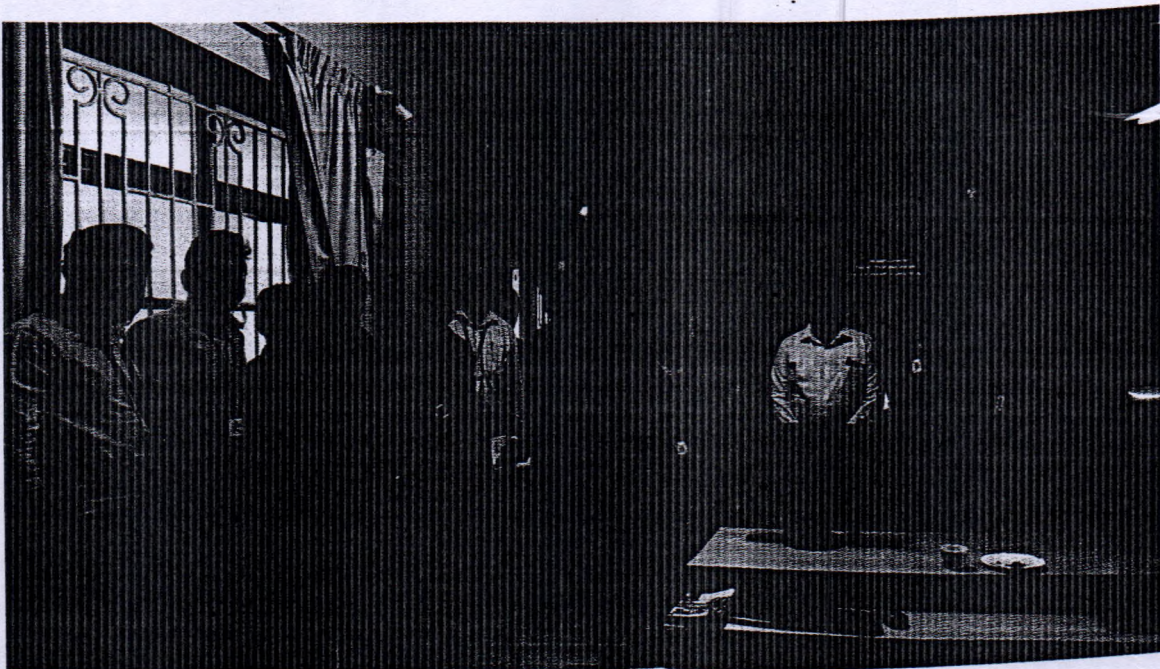

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Participants enthusiastically developed the model and verified the real time monitoring energy management between suppliers and consumers. He explained how the smart grid can be improved in power systems with the help of few working models in MATLAB as a Hands-on-Training.



Group photo at the end of the session

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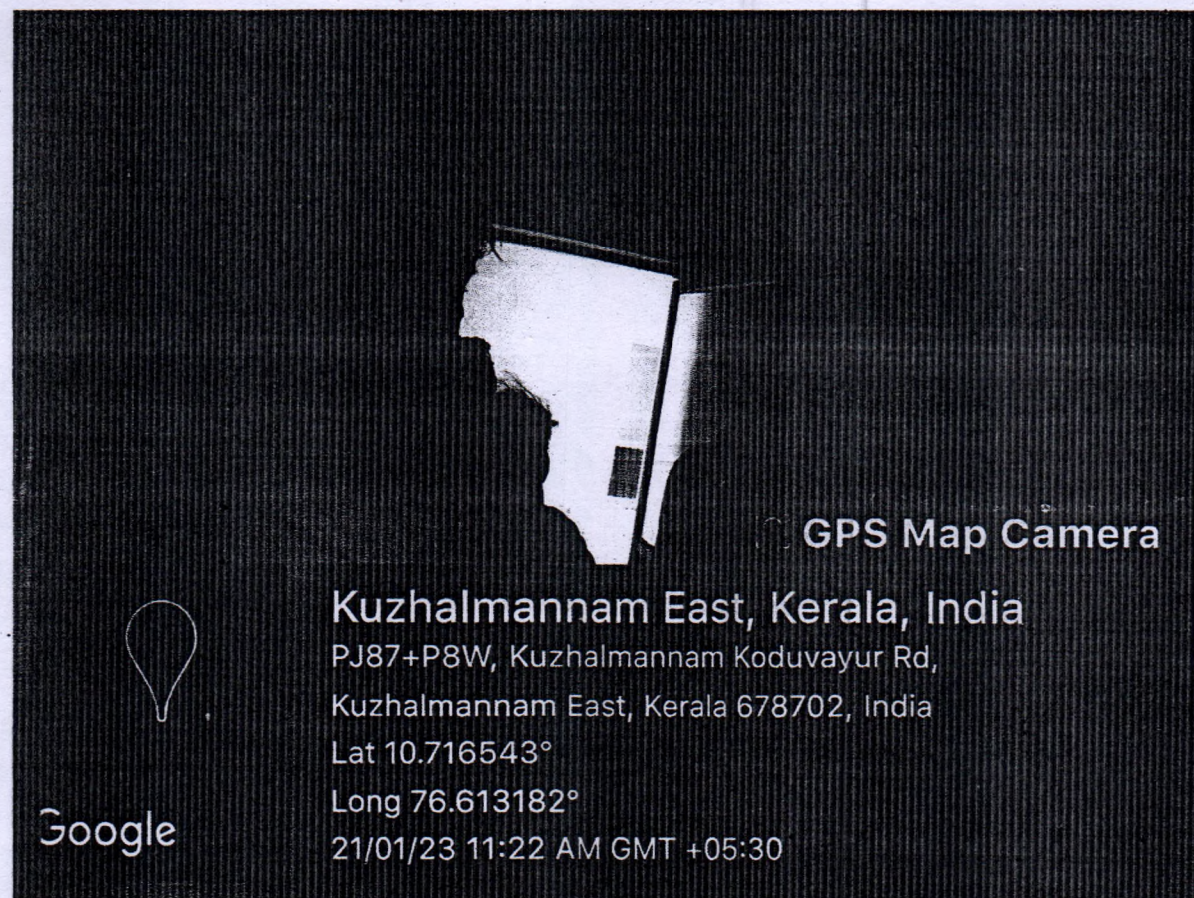
DATE: 17TH JANUARY to 21ST JANUARY 2023

Day 5: 21st January 2023

Program: Industrial Visit

Time: 10.00am -3.00pm

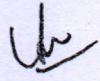
Visit: 2MW Solar Power Plant at Kuzhalmannam, Palakkad



We started the journey from NCERC at 10am and reached ANERT, Kuzhalmannam at 11.15am. We met the trainer at ANERT and he explained about the single line diagram of 2MW solar power plant.

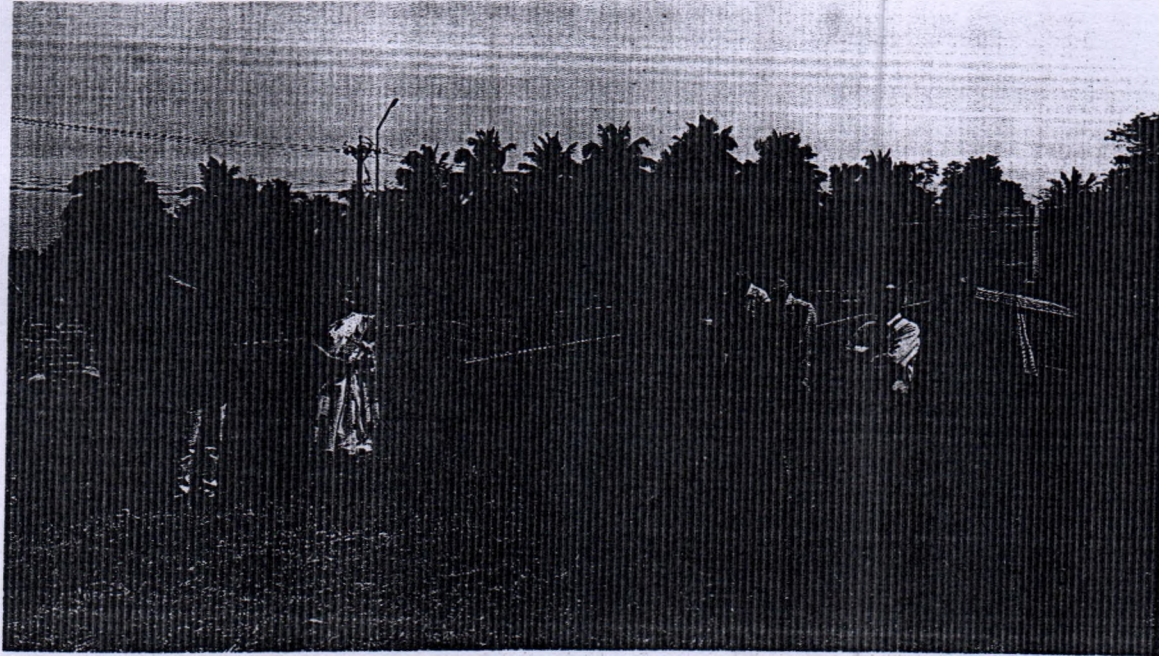


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DATE: 17TH JANUARY to 21ST JANUARY 2023



Group Photo at 2MW Solar Power Plant Kuzhalmannam, Palakkad

The original climate in Kerala is characterized by two monsoon periods: southwest monsoon and northeast monsoon, with more than three months of heavy rainy seasons. The Kerala climate includes summer (February to May), winter (December to January), Monsoon-South West (June to September), Monsoon-North East (October to December). The 2MW solar power plant site is located near Kuzhalmannam junction, Kerala State in South India. The geographical coordinates of the above 2 MW location are 100 43' 2.1" N, 760 36' 48.1" E with an altitude of 96 m above mean sea level. This solar power plant is connected and feeding power to the local grid facility owned by the public utility, Kerala State Electricity Board Ltd. The highest in-plane solar irradiation is recorded from January to April, with a cumulative average of 180.41 kWh/m². The lowest solar in-plane insolation is measured during the months of June (106.5 kWh/m²), July (101.37 kWh/m²), and August (106.64 kWh/m²). This change is attributed to the southwest monsoon climate prevailing in the State of Kerala. The site receives lower solar insolation during these months. The lowest ambient temperature is measured during the southwest monsoon (June–August) when compared to the winter (December and January), which is unique for this region, where monsoon affects the solar insolation to a greater extent. The average ambient temperatures for the entire year is observed at 31.72 °C.

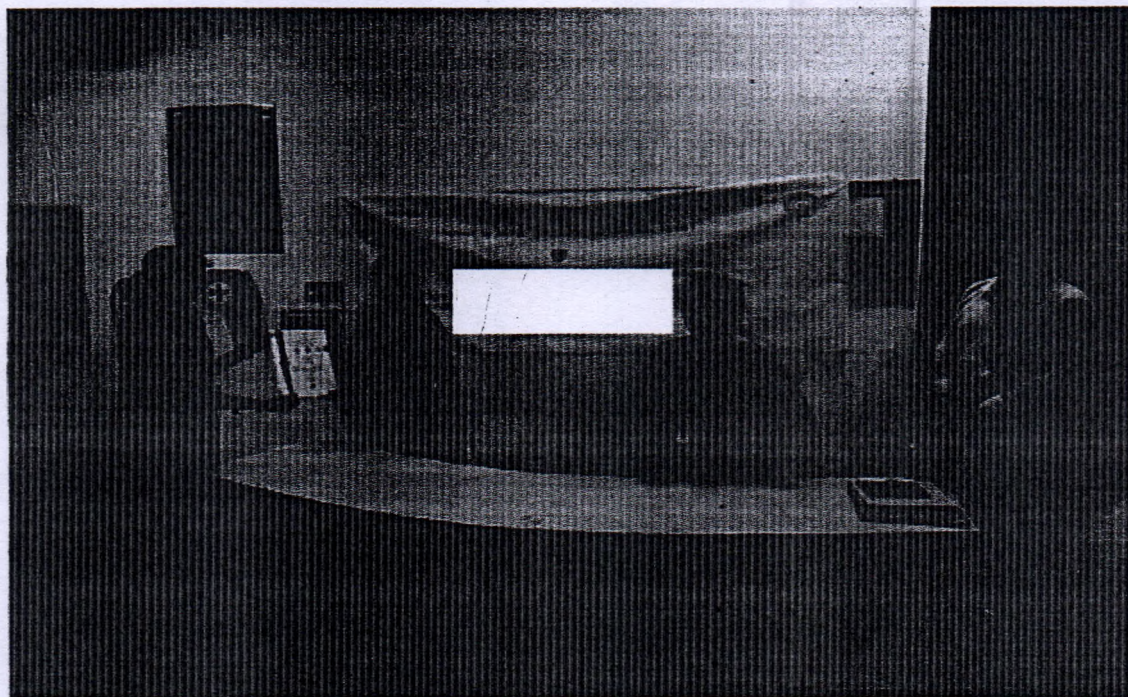
A P J ABDUL KALAM TECHNOLOGICAL UNIVERSITY
Sponsored
FACULTY DEVELOPMENT PROGRAM ON IoT APPLICATIONS IN SMART GRID

DATE: 17TH JANUARY to 21ST JANUARY 2023

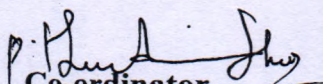
Program: Valedictory Function

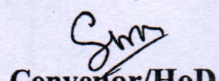
Time: 03.00pm -4.00pm

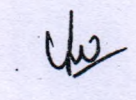
Venue: MATLAB Aryabhata.

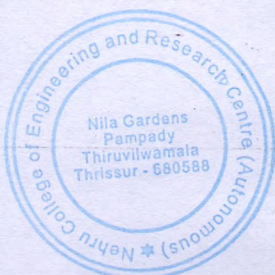


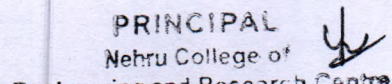
We collected the feedback from participants, and our Principal, Dr. Ambikadevi Amma T issued the completion certificates to all participants. The FDP program came to a conclusion with National Anthem.

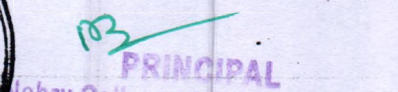

Co-ordinator


Convenor/HoD


Principal




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Nehru College of
Engineering and Research Centre
Pampady, Thiruvilwamala, Thrissur Dt.
Pin - 680 597, Kerala


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Thiruvilwamala, Thrissur - 680588

ഭരണഭാഷ-മലയാളം

അനെർട്ട്
ANERT



Agency for New and Renewable Energy Research and Technology

തീവ്രത പുനഃപര്യവേഷണസംസ്ഥാനം ഊർജ്ജ ഗവേഷണങ്ങൾക്കും സാങ്കേതിക വിദ്യകൾക്കുമുള്ള ഏജൻസി
(Department of Power, Government of Kerala)

Participation Certificate

This is to certify that thirty faculty members from various Engineering Colleges affiliated to Kerala Technological University have done an Industrial visit at 2MW ANERT Solar Power Plant at Kuzhalmannam, Palakkad on 21st January 2023. This visit was in connection with Five-day Faculty Development Program on IoT Applications in Smart Grid from 17th to 21st January 2023 sponsored by APJ Abdul Kalam Technological University and organized by EEE department, Nehru college of Engineering and Research Centre Pampadi, Thrissur.

Approval for the visit was given based on request from Program coordinator & HoD EEE Nehru college of Engineering and Research Centre.

Dr. Ajith Gopi
Joint Chief Technical Manager
ANERT

Thiruvananthapuram,
21-01-2023.

103
PROFESSOR
Nehru College of Engineering and
Research, Pampadi, Thrissur
Nile, Pampadi, Thrissur



NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

(Re – Accredited by NAAC with 'A' Grade)

(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University, Kerala)



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Sponsored

Five-day FDP on "IoT Applications in Smart Grid"

DATE: 17.01.23 – 21.01.23

Participant feedback

Name of Faculty: Dr. JOHN CHEMBUKRANU

Designation: HOD

Name of College/Institute/University: IES COLLEGE OF ENGINEERING

1. How useful was this FDP for you?

(Please circle the appropriate number where 1 = not at all useful and 5 = extremely useful)

☒ 1 2 3 4 5

2. In these Sessions gave exposure on IoT Applications?

A. Yes ☒ B. No

3. How would you rate us with the technical information we delivered you in this program?

(Please circle the appropriate number 1 = disagree and 5 = completely agree)

☒ 1 2 3 4 5

4. How would you rate with the Materials, we delivered in this program?

(Please circle the appropriate number where 1 = not at all efficient and 5 = extremely efficient)

1 2 3 4 5 ☒

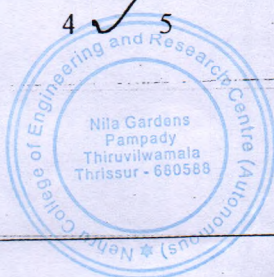
5. How will you rate the arrangements of the event?

(Please circle the appropriate number where 1 = bad and 5 = excellent)

1 2 3 4 5 ☒

6. How much confidence and knowledge you have gained from this event to advocate IoT Applications to the teaching community at your reach?

1 2 3 4 ☒ 5



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Thiruvilwamala, Thrissur - 680588

Signature

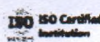
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Report of Five Days Faculty Development Programme (FDP) on

SOCIAL ENTREPRENEURSHIP MANAGEMENT

23, 24, 25, 27, 28 January 2023

Sponsored By



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Organized by

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Report of Five Days Faculty Development Programme (FDP) on

SOCIAL ENTREPRENEURSHIP

Jan-23,24,25,27,28-2023

Sponsored by



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, KERALA

Report Prepared by

Dr. R. Suriakala

Associate Professor & FDP Course Coordinator

Department of MBA

Nehru College of Engineering and Research Centre

Verified by

Dr. Joju C. Akkara

Head of The Department

Department of MBA

Nehru College of Engineering and Research Centre

Approved by

Prof. Dr. Ambika Devi Amma T

Principal

Nehru College of Engineering and Research Centre

13
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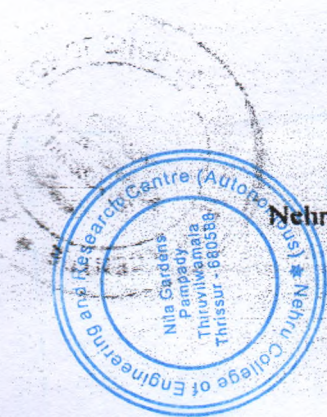
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Engineering and Research Centre
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NEHRU GROUP
OF INSTITUTIONS
KAMARAJAPURAM

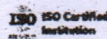
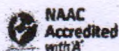




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APJ AKTU SPONSORED FDP ON SOCIAL ENTREPRENEURSHIP MANAGEMENT

The Department of MBA has organized a 5 days Faculty Development Programme (FDP) sponsored by APJ Abdul Kalam Technological University from 23,24,25,27, 28 January 2023.

INTRODUCTION

This unique faculty development programme is intended to expose the academic community and students to social entrepreneurial development process and to equip them with a repository of skill set. The practical sessions in this FDP proved to be a path finder for launching new business ventures and to ideate the young minds around us. The program also aims to engage the participants into the different nuances of social entrepreneurship.

Day -1, 23rd January 2023

Transforming Education through Social Entrepreneurship
Social Entrepreneurship Research- Need of the Hour

Day -2, 24th January 2023

Ideating the Educational Entrepreneurs
Mantras of building an online social Enterprise.

Day -3, 25th January 2023

Social Entrepreneurship – Emergence as a alternative model of business.
Social Innovation – Application of creative thinking in Social Enterprise.

Day -4, 27th January 2023

Funding aspects of Social Enterprise
Social Entrepreneurs – Problem recognition evaluation and exploitation.

Day -5, 28th January 2023

Emerging trends in Social Entrepreneurship Management.
Marketing in the context of Social Entrepreneurs.



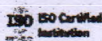

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APJ AKTU SPONSORED FDP ON SOCIAL ENTREPRENEURSHIP MANAGEMENT

ORGANIZING COMMITTEE

NEHRU GROUP OF INSTITUTIONS (NGI) Nehru College of Educational and Charitable Trust was established way back in 1968 by the Founder Chairman late Shri. P. K. Das who was an eminent Chartered Engineer, a renowned Academician, a great Industrialist and a well known Philanthropist with an objective of imparting value added practical education of international standard in aviation and other fields of technology. The trust, started initially with a college of aeronautics diversified later on to establish a cluster of educational institutions both in Tamil Nadu and Kerala. Nehru Group of Institutions (NGI) was founded on this philosophy to serve students, especially from socially backward backgrounds looking out for continuing education pathways with an academic and vocational direction.

Nehru College of Engineering and Research Centre (NCERC), situated on the banks of the river Nila, is a premier Engineering college that has pioneered engineering education, research and training in the private sector. Established in 2002 by the founder chairman Shri PK. Das, NCERC is committed to impart world class quality education in engineering and research. Dedicated to the service in the realm of technical education in Kerala, it is an ISO 9001:2015 certified institution, approved by All India Council for Technical Education (AICTE), affiliated to APJ Abdul Kalam Technological University (KTU) and is accredited by National Assessment and Accreditation Council (NAAC).

Nehru School of Management @NCERC is a vibrant and innovative business school, ranked among the leading B-Schools in national level grading service. The platform gives opportunity for students to experience professional work in the limelight. NSM believes and strives to achieve a holistic development of the individual who will contribute in future not only as good managers but also as disciplined corporate citizens. NSM consistently encourage the students to leverage the unparalleled resources of the School of Management, Nehru Group of Institution and APJ Abdul Kalam Technological University.



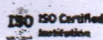
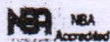
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ORGANIZING COMMITTEE

PATRONS

Adv. Dr. P Krishna das Chairman & Managing Trustee Nehru group of institutions Kerala & Tamilnadu	Dr. P Krishnakumar CEO & Secretary Nehru group of institutions Kerala & Tamilnadu
---	---

PROGRAMME DIRECTOR

Prof. Dr. Ambikadevi Amma T
Principal
Nehru college of engineering and research Centre

PROGRAMME CONVENER

Prof. Dr. Joju C Akkara
Head Of the Department
Nehru school of management

PROGRAMME COORDINATORS

Dr. R. Suriakala
Associate professor
Nehru school of management

Mrs. Roshini A. R
Assistant professor
Nehru school of management

PROGRAMME COMMITTEE

Mr. Sijo Joseph Chakola
Assistant professor – Nehru school of management

Dr. Shankar Narayanan
Assistant professor – Nehru school of management



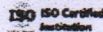
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FDP SANCTION LETTER FROM UNIVERSITY



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

CET campus, Thiruvananthapuram - 695 016

Ph: 0471 2598122; Fax: 2598522 www.ktu.edu.in Email: university@ktu.edu.in

File Ref.No.KTU/ASST12(ACADEMIC)/3286/2022

**APJ Abdul Kalam Technological University
Thiruvananthapuram**

Abstract

Faculty Development Programme (FDP) for the academic Year 2022-23 - Selected - Reg

ACADEMIC AUDIT

U.O.No. 1545/2022/KTU

Thiruvananthapuram, Dated: 29.06.2022

Read:-Notification No: KTU/ACA1/1449/2022 dated 14/03/2022

ORDER

Proposals were invited for conducting Faculty Development Programmes for the academic year 2022-23 from the Institutions / professional bodies as per reference cited above. A total number of 393 applications were received.

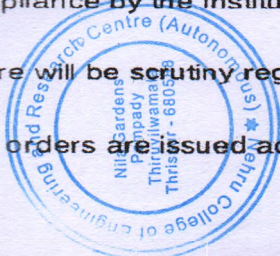
The proposals were scrutinized by experts from respective disciplines and shortlisted 131 applications with a suggestion to approve. Hon'ble Vice-Chancellor has approved the suggestion and accorded sanction to conduct the Faculty Development Programme as per the List attached.

The following instructions are also issued for strict compliance:

1. All Institutions may conduct their FDPs before 30 April 2023 through offline mode.
2. The Colleges shall engage the technical sessions by the expert faculty listed in the proposal.
3. The course coordinators may submit the report of the program as mentioned in the guidelines with original bills of transactions made during the program (including honorarium, TA, refreshments, reading materials, etc.) attested by the Head of the Institution and statement of accounts audited by a Chartered accountant for reimbursement.
4. Further guidelines and budgetary provisions for the conduct of FDPs are attached for compliance by the Institutions.

There will be scrutiny regarding the conduct of FDPs by the APJAKTU authorities.

The orders are issued accordingly.



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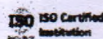
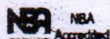
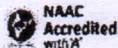
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Encl:

1. List of FDP sanctioned for the academic year 2022-23
2. Budgetary provisions and instructions for conducting FDPs through offline mode

Sd/-

Dr. Sadiq A. *
Dean (Academic)

* This is a computer system (Digital File) generated letter. Hence there is no need for a physical signature.

10/05/2022



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Rules and Regulations for conducting FDP

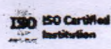
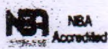
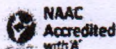
As far as possible the FDPs are to be scheduled during the semester breaks without disturbing the normal academic activities and to ensure maximum faculty participation.



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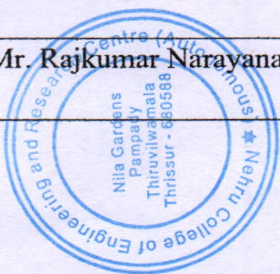
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APJ AKTU SPONSORED FDP ON SOCIAL ENTREPRENEURSHIP MANAGEMENT

PARTICIPANTS LIST

Sl.no.	Name of the participant	Name of the college
1	Mrs. Bindhu. P	Al-Ameen Engineering college, kulappully, shornur 2
2	Mrs. Asmabi. v	Al-Ameen Engineering college, kulappully, shornur 2
3	Mrs. Thanzeela Mol. A	Al-Ameen Engineering college, kulappully, shornur 2
4	Mr. Suresh P	Al-Ameen Engineering college, kulappully, shornur 2
5	Ms. Ajeena A	Al-Ameen Engineering college, kulappully, shornur 2
6	Ms. Abeena A	Al-Ameen Engineering college, kulappully, shornur 2
7	Mr. Deepak. M	MES College of Engineering, Kuttipuram
8	Dr. Issac George	MES College of Engineering, Kuttipuram
9	Mrs. Soumya B	MES College of Engineering, Kuttipuram
10	Dr. K P. Jabir Moosa	MES College of Engineering, Kuttipuram
11	Ms. Jessie K K	Nirmala college of Management Studies, Chalakkudy
12	Ms. Annie K T	Nirmala college of Management Studies, Chalakkudy
13	Dr. Twinkle K Antony	Nirmala college of Management Studies, Chalakkudy
14	Mrs. Suseela K S	Nirmala college of Management Studies, Chalakkudy
15	Mrs. Mary Stella Y	Nirmala college of Management Studies, Chalakkudy
16	Mr. Saneesh Kumar K U	Nirmala college of Management Studies, Chalakkudy
17	Mr. Rajkumar Narayanan	Jawaharlal college of Engineering and Technology, Lakkidi

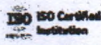




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18	Dr. K V S Raj	Jawaharlal college of Engineering and Technology, Lakkidi
19	Mrs. R. Suma	Jawaharlal college of Engineering and Technology, Lakkidi
20	Dr. K S. Sreejamol	Jawaharlal college of Engineering and Technology, Lakkidi
21	Mr. Vysak Valsan	Jawaharlal college of Engineering and Technology, Lakkidi
22	Lt. Nisha Narayanan	Jawaharlal college of Engineering and Technology, Lakkidi
23	Mrs. Neethu M Joy	Jawaharlal college of Engineering and Technology, Lakkidi
24	Ms. P T Rajeeva Mol	Nehru College of Engineering and Research Centre, Pambady
25	Dr. N Shankar	Nehru College of Engineering and Research Centre, Pambady
26	Mr. Ranjith P N	Nehru College of Engineering and Research Centre, Pambady
27	Mr. Saneesh A S	Nehru College of Engineering and Research Centre, Pambady
28	Ms. Divya P	Nehru College of Engineering and Research Centre, Pambady
29	Ms. Sumi M	Nehru College of Engineering and Research Centre, Pambady
30	Mr. Ashish L	Nehru College of Engineering and Research Centre, Pambady



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KTU SPONSORED FDP ON
SOCIAL ENTREPRENEURSHIP MANAGEMENT
(January 23, 24, 25, 27 and 28- 2023)

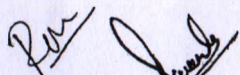
Sl.No.	Name of the Participants	College Name	Day 1 (23.01.23)		Day 2(24.01.23)		Day 3 (25.01.23)		Day 4 (27.01.23)		Day 5(28.01.23)	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	Mrs. Bindhu. P	Al-Ameen	Bindhu	Bindhu	Bindhu	Bindhu	Bindhu	Bindhu	Bindhu	Bindhu	Bindhu	Bindhu
2.	Mrs. Asmabi. v	Al-Ameen	Asmabi	Asmabi	Asmabi	Asmabi	Asmabi	Asmabi	Asmabi	Asmabi	Asmabi	Asmabi
3.	Mrs. Thanzeela Mol. A	Al-Ameen	Thanzeela	Thanzeela	Thanzeela	Thanzeela	Thanzeela	Thanzeela	Thanzeela	Thanzeela	Thanzeela	Thanzeela
4.	Mr. Suresh P	Al-Ameen	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh	Suresh
5.	Ms. Ajeena A	Al-Ameen	Ajeena	Ajeena	Ajeena	Ajeena	Ajeena	Ajeena	Ajeena	Ajeena	Ajeena	Ajeena
6.	Ms. Abeena A	Al-Ameen	Abeena	Abeena	Abeena	Abeena	Abeena	Abeena	Abeena	Abeena	Abeena	Abeena
7.	Mr. Deepak. M	MES	Deepak	Deepak	Deepak	Deepak	Deepak	Deepak	Deepak	Deepak	Deepak	Deepak
8.	Dr. Issac George	MES	Issac	Issac	Issac	Issac	Issac	Issac	Issac	Issac	Issac	Issac
9.	Mrs. Soumya B	MES	Soumya	Soumya	Soumya	Soumya	Soumya	Soumya	Soumya	Soumya	Soumya	Soumya

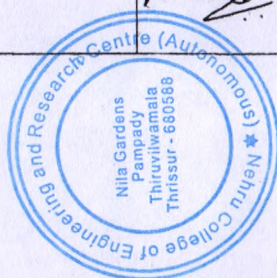
[Signature]
Coordinator:



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Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680588

Sl.No.	Name of the Participants	College Name	Day 1 (23.01.23)		Day 2(24.01.23)		Day 3 (25.01.23)		Day 4 (27.01.23)		Day 5 (28.01.23)	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
10.	Dr. K P. Jabir Moosa	MES	Jal	Jal	Jal	Jal	Jal	Jal	Jal	Jal	Jal	Jal
11.	Ms. Jessy K K	Nirmala Clg	K.K.Jessy	K.K.Jessy	K.K.Jessy	K.K.Jessy	K.K.Jessy	K.K.Jessy	K.K.Jessy	K.K.Jessy	K.K.Jessy	K.K.Jessy
12.	Ms. Annie K T	Nirmala Clg	Annie	Annie	Annie	Annie	Annie	Annie	Annie	Annie	Annie	Annie
13.	Dr. Twinkle K Antony	Nirmala Clg	Thn	Thn	Thn	Thn	Thn	Thn	Thn	Thn	Thn	Thn
14.	Mrs. Suseela K S	Nirmala Clg	Sushala	Sushala	Sushala	Sushala	Sushala	Sushala	Sushala	Sushala	Sushala	Sushala
15.	Mrs. Mary Stella Y	Nirmala Clg	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella	Y. Mary Stella
16.	Mr. Saneesh Kumar K U	Nirmala Clg	Saneesh	Saneesh	Saneesh	Saneesh	Saneesh	Saneesh	Saneesh	Saneesh	Saneesh	Saneesh
17.	Mr. Rajkumar Narayanan	JCET	Raj	Raj	Raj	Raj	Raj	Raj	Raj	Raj	Raj	Raj
18.	Dr. K V S Raj	JCET	KVS Raj	KVS Raj	KVS Raj	KVS Raj	KVS Raj	KVS Raj	KVS Raj	KVS Raj	KVS Raj	KVS Raj
19.	Mrs. R. Suma	JCET	Suma	Suma	Suma	Suma	Suma	Suma	Suma	Suma	Suma	Suma
20.	Dr. K S. Sreejamol	JCET	KS Sreejamol	KS Sreejamol	KS Sreejamol	KS Sreejamol	KS Sreejamol	KS Sreejamol	KS Sreejamol	KS Sreejamol	KS Sreejamol	KS Sreejamol
21.	Mr. Vysak Valsan	JCET	Vysak	Vysak	Vysak	Vysak	Vysak	Vysak	Vysak	Vysak	Vysak	Vysak
22.	Lt. Nisha Narayanan	JCET	Nisha	Nisha	Nisha	Nisha	Nisha	Nisha	Nisha	Nisha	Nisha	Nisha
23.	Mrs. Neethu M Joy	JCET	Neethu	Neethu	Neethu	Neethu	Neethu	Neethu	Neethu	Neethu	Neethu	Neethu


 Coordinator:



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	Name of the Participants	College Name	Day 1 (23.01.23)		Day 2 (24.01.23)		Day 3 (25.01.23)		Day 4 (27.01.23)		Day 5 (28.01.23)	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
24	Ms. P T Rajeena Mol	NCERC	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>	<i>Rajeenamol</i>
25	Dr. N Shankar	NCERC	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>	<i>Shankar</i>
26	Mr. Ranjith P N	NCERC	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>	<i>Ranjith</i>
27	Mr. Saneesh A S	NCERC	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>	<i>Saneesh</i>
28	Ms. Divya P	NCERC	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>	<i>Divya</i>
29	Ms. Sumi M	NCERC	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>	<i>Sumi</i>
30	Mr. Ashish L	NCERC	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>	<i>Ashish</i>



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[Signature]
 Coordinator:



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NEHRU SCHOOL OF MANAGEMENT
KTU SPONSORED FDP ON SOCIAL ENTREPRENEURSHIP MANAGEMENT

FEEDBACK FORM

Name: BINDHU P

Designation: ASSOCIATE PROFESSOR

Department: ECE

Qualifications: M.E

KTU ID: KTO - F3438

College Name & Address: AL ANEEN ENGINEERING COLLEGE
Day 1 (23.01.2023)

Session 1: Transforming Education through Social Entrepreneurship

Session 2: Social Entrepreneurship Research- Need of the Hour

Resource Person: Dr.P.Pon Meenakshi Professor & Head, School of Management, Sri Krishna College of Engineering and Technology, Coimbatore

- Were objectives of the course clear to you? Yes/No ☒ Yes
- How would you rate the quality of content of the sessions?
 - ☒ Excellent
 - ☐ Very Good
 - ☐ Good
 - ☐ Satisfactory
 - ☐ Poor
- Overall content delivery by the resource person
 - ☐ Excellent
 - ☒ Very Good
 - ☐ Good
 - ☐ Satisfactory
 - ☐ Poor
- Usefulness of the topic for your research/career
 - ☐ Excellent
 - ☒ Very Good
 - ☐ Good
 - ☐ Satisfactory
 - ☐ Poor
- The instructors encouraged interaction and were helpful
 - ☒ Excellent
 - ☐ Very Good
 - ☐ Good
 - ☐ Satisfactory
 - ☐ Poor
- The session material handed out was adequate
 - ☒ Excellent
 - ☐ Very Good
 - ☐ Good
 - ☐ Satisfactory
 - ☐ Poor



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Thiruvilwamala, Thrissur - 680588

BINDHU P

Signature of the Participant:



**KTU SPONSORED FACULTY DEVELOPMENT PROGRAMME on "INNOVATIVE
FACETS OF INTERNET OF THINGS (IoT)"**

INTRODUCTION

The Electronics and Communication Engineering (ECE) Department, NCERC has organized a 5-days FDP sponsored by AJ Abdul Kalam Technological University in Offline mode from 01/03/2023 to 07/03/2023.

The FDP entitled "Innovative Facets of IoT", introduced the participants to the state of the art technology and cutting edge innovations and practices of Internet of Things (IoT). The FDP commenced with the fundamentals of sensors and rudiments of networking and progressed to the most fascinating aspects of Arduino and Raspberry Pi interfacing for a variety of domains including Industrial, Medical and Renewable energy control. The participants were exposed to a good blend of theory and intense hands-on sessions to enable a highly invigorating experience. The Resource persons also highlighted clearly the recent trends in research in Internet of Things.

Course Contents

Day-1:

01-03-2023

- o Internet of Things Demystified
- o Practical issues
- o Research avenues
- o Intercommunication IoT

Day-2:

02-03-2023

- o Smart Charging of Electric Vehicles using IoT
- o Research avenues
- o Hands-on session using Arduino IDE

Day-3:

03-03-2023

- o Practical sessions on IoT using hardware and IDE, connectivity, sensors

Day-4:

04-03-2023

- o Internet of Medical Things (IoMT)
- o Current state of the art practices
- o Research avenues
- o Brain modeling - Research area of Image processing
- o Skull stripping, segmentation and edge detections
- o Hands-on session using medical board for basic temperature, BP etc

Day-5:

07-03-2023

- o Renewable Energy – Monitoring parameters using IoT
- o Exploitation of solar and wind energy
- o Current state of the art practices
- o Research avenues
- o Hands-on session using basic IoT boards, sensors and ESP board



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**KTU SPONSORED FACULTY DEVELOPMENT PROGRAMME on "INNOVATIVE
FACETS OF INTERNET OF THINGS (IoT)"**

ORGANIZATION, DEPARTMENT AND ESSENCE OF FDP

About the College

Nehru College of Engineering and Research Centre (NCERC), situated on the banks of the river Nila, in the lush, pristine surroundings of Pampady, is a premier Engineering College that has pioneered Engineering Education, Research and Training in the Private Sector. Established in 2002 by the founder Chairman Late Shri P.K Das, NCERC is committed to provide world class quality education in Engineering and Research. Dedicated to the service in the realm of technical education in Kerala, it is a ISO 9001:2015 certified Institution, approved by All India Council of Technical Education (AICTE), affiliated to APJ Abdul Kalam Technological University (KTU) and is accredited by National Assessment and Accreditation Council (NAAC). Over the years NCERC has grown to become one of the best self-financing Colleges in Kerala.

About the ECE Department

The Department of ECE was established in 2002 with an intake of 60 students for under graduate (B.Tech) programme and enhanced to an intake of 120 students from 2006. The department offers two Postgraduate (M.Tech) programmes, namely, "Applied Electronics & Communication System" from 2011 with an intake of 26 students and "VLSI Design" from 2012 with an intake of 18. Highly qualified, experienced and dedicated staff members are the backbone of the Department. The Department always strives hard to satisfy the knowledge thirst of both students and faculties by organizing workshops / technical talks / conferences and so on. The faculty members are actively involved in research work and regularly present/ publish their work in various national and international conferences /journals. The ECE Department is proud to host state-of-the-art Laboratories in the area of VLSI, Embedded Systems, Microprocessor and Microcontrollers, Circuits, Analog and Digital Communication and Microwave and Optical communication.

The ECE department formally inaugurated the ECHOS (The ECE Association) in 2009 and under this banner many extra-academic activities have been conducted such as paper presentation, quiz competition, workshops and seminars. Also the department has two magazines that have been developed on the basis of the creative skills of our imaginative students. There is an Embedded Club that meets on monthly basis to discuss innovative projects and publication based activities. Department is closely associated with the INSTITUTE OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE) Palakkad Centre to organize technical events like guest lecture, seminars and conferences.




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Objectives and Context

To get to understand and convey the Emerging Trends of the 21st Century in Internet of Things (IoT) in relation to various sectors of Industry, Medicine, Agriculture and Smart Automation.

About the Topic

Internet of Things (IoT) has revolutionized Industry, Medicine, Agriculture and it is very critical to be aware of the latest cutting edge developments that have rocked the humanity and awoken a passion for smart automation in almost every sector of development.

Benefits to Faculty

The Faculty members attending this programme will be exposed to the latest trends in IoT, that will be of paramount importance in all sectors of development. Highly knowledgeable and skilled resource persons from different parts of India, would over the period of five days, churn and invigorate a vivid interest and passion for IoT, through their worthy sessions.

PROGRAMME IS SPONSORED EXCLUSIVELY BY KTU

Chief Patrons:

Adv.Dr.P. Krishnadas
Chairman & Managing Trustee, NGI
Dr.P. Krishnakumar
CEO & Secretary, NGI

Patrons:

Prof.Dr. Karibasappa Kwadiki
Principal, NCERC, Pampady
Prof Dr. Ambika Devi Amma T
Dean, Student Affairs

Convener:

Prof. Sajitha A.S
HoD i/c , ECE Dept, NCERC

Co-Convener & Co-ordinator:

Prof. P.Rajkumar
Prof, ECE Dept, NCERC



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FDP SANCTION LETTER FROM KTU



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

CET campus, Thiruvananthapuram - 695 016
Ph: 0471 2598122; Fax: 2598522 www.ktu.edu.in Email: university@ktu.edu.in

File Ref.No.KTU/ASST12(ACADEMIC)/3286/2022

APJ Abdul Kalam Technological University
Thiruvananthapuram

Abstract

Faculty Development Programme (FDP) for the academic Year 2022-23 - Selected - Reg

ACADEMIC AUDIT

U.O.No. 1545/2022/KTU

Thiruvananthapuram, Dated: 29.06.2022

Read:-Notification No: KTU/ACA1/1449/2022 dated 14/03/2022

ORDER

Proposals were invited for conducting Faculty Development Programmes for the academic year 2022-23 from the Institutions / professional bodies as per reference cited above. A total number of 393 applications were received.

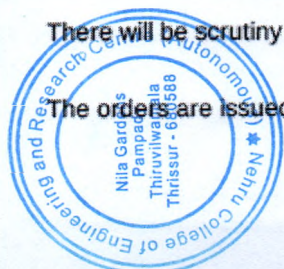
The proposals were scrutinized by experts from respective disciplines and shortlisted 131 applications with a suggestion to approve. Hon'ble Vice-Chancellor has approved the suggestion and accorded sanction to conduct the Faculty Development Programme as per the List attached.

The following instructions are also issued for strict compliance:

1. All Institutions may conduct their FDPs before 30 April 2023 through offline mode.
2. The Colleges shall engage the technical sessions by the expert faculty listed in the proposal.
3. The course coordinators may submit the report of the program as mentioned in the guidelines with original bills of transactions made during the program (including honorarium, TA, refreshments, reading materials, etc.) attested by the Head of the Institution and statement of accounts audited by a Chartered accountant for reimbursement.
4. Further guidelines and budgetary provisions for the conduct of FDPs are attached for compliance by the Institutions.

There will be scrutiny regarding the conduct of FDPs by the APJKTU authorities.

The orders are issued accordingly.



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Encl:

1. List of FDP sanctioned for the academic year 2022-23
2. Budgetary provisions and instructions for conducting FDPs through offline mode

Sd/-

Dr. Sadiq A. *
Dean (Academic)

* This is a computer system (Digital File) generated letter. Hence there is no need for a physical signature.




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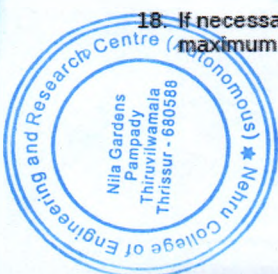
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Rules and Regulations for conducting FDP

As far as possible the FDPs are to be scheduled during the semester breaks without disturbing the normal academic activities and to ensure maximum faculty participation.

1. It is mandatory to have a fixed batch of 30 participants in each programme. Number of participants from the host institute is limited to 1/3rd of the total number of participants. The rest of the participants should be from other KTU affiliated colleges.
2. There should be minimum 6 hour training per day, excluding tea and lunch break.
3. It is compulsory for the participants to attend all the sessions of the programme. Otherwise the participant's certificate will not be awarded.
4. It is mandatory to submit the brief C. V of the resource persons highlighting their contribution in the concerned subject of FDP.
5. Minimum 50% of the resource persons should be from outside the host institute.
6. Honorarium to faculty/ External experts is limited to Rs.1000/ hour.
7. Honorarium to Faculty/ External Experts from IIT/ IIM/ National Institutes is limited to Rs.5000/- per day.
8. TA / Accommodation to external experts are as per University rules.
9. Local conveyance to resource persons is limited to Rs.1000/ day.
10. Honorarium to centre coordinator and course coordinator is Rs.3000/ day. This amount should be shared between them.
11. Honorarium to technical assistants for venue arrangements, purchase assistance, data entry etc. is limited to Rs 2000/day, applicable during the duration of the programme.
12. Stationeries, consumables, certificates printing, report printing, photography etc. is limited to Rs 15000/- per course.
13. Course / Training materials (Soft / hard copy / text book) is limited to Rs 1000 /- per participant.
14. Working lunch and refreshments is limited to Rs250/- per day per participant.
15. Miscellaneous – Limited to Rs 10000/- per course.
16. The host institute may provide accommodation facility to the participants, if available. The charges if any, for this have to be borne by the participants themselves.
17. It is mandatory to provide the soft copies of the presentations made during the FDP to the participants.
18. If necessary, the host institute can collect nominal registration fee from participants subject to a maximum of Rs 500/ per participant.




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19. After the completion of the programme the respective course coordinators are required to submit the hard as well as soft copy of the report of the programme to the University within 15 days of the completion of the programme. The report must include the participant list, registration forms, attendance sheet, feedback forms of the participants, media coverage of the programme, complete details of the resource persons, one group photo, soft copy of the presentations made during the programme and original bills of all transactions made during the programme including honorarium, TA, refreshments, reading materials etc. attested by the Head of the Institution.

20. The payments will be in the form of reimbursement of the expenses based on the statements of accounts subject to a maximum amount of Rs 1.5 lakhs for 3-day programme and Rs 2 lakhs for 5-day programme.

List of Approved Faculty Development Programmes sanctioned for the year 2022-'23. The Approved FDP for ECE Department, NCERC is highlighted as item no: 42.

34	LBS Institute of Technology for women, Poojappura, Thiruvananthapuram	FDP on Blockchain Technology and Applications	1. Binoy D M Panicker (asst. Prof) 2. Dr. Smitha Vas P (Asst. Prof) LBS Institute of Technology for women, Poojappura, Thiruvananthapuram	9447449934 binoydmp@lbsitw.ac.in 9562010657 smithavas@lbsitw.ac.in
35	TKM College of Engineering, Karikode, Kollam	Current Trends in Cyber Security	1. Dr. Manu J Pillai (Asst Prof) 2. Dr. Ansumma John (Prof & Head) Dept Of CSE TKM College of Engineering, Karikode, Kollam	9895724524 manujpillai@gmail.com 9447453101 ansumma.john@gmail.com
36	College of Engineering Kalloppara, Kadamankulam PO, Thiruvalla, Pathanamthitta-689583	Cyber Security-An Investigator Perspective	1. Raj Kumar T (asst Prof) CSE College of Engineering Kalloppara, Kadamankulam PO, Thiruvalla, Pathanamthitta-689583	0469-2677890, 9447402630 rajkumar@ceek.ac.in
37	TKM College of Engineering, Karikode, Kollam	Data Analytics for the new Industrial era: Challenges Application of ML with Industrial Data	1. Aneesh G Nath (Assoc. prof) CSE 2. Shyna A (Asst. Prof) CSE TKM College of Engineering, Karikode, Kollam	9495217647, 9074265311 aneeshgnath1986@gmail.com 9447303127 s4shyna@gmail.com
38	College Of Engineering Attingal	Introduction to Generative adversarial Network	1. Dr. Sunil T T (Principal) 2. Suma LS (Asst. Prof) CSE College Of Engineering Attingal	9446172785 sunil@ceattingal.ac.in 9447419533 suma@ceattingal.ac.in
39	TKM Institute of Technology, Musaliar Hills Kollam	Role of PYTHON in Emerging trends of Computer Science	1. Ms. Revathy N (Asst. Prof) CSE 2. Mrs. Chinnu Ravi (Asst. Prof) CSE TKM Institute of Technology, Musaliar Hills, Kollam	8281639293 revathyng@tkmit.ac.in 9497363721 chinnuravi@tkmit.ac.in
40	VJCET, Vazhakulam Po, Ernakulam	Data Analytics for Decision Making	1. Dr. Sajan T John (Assoc. Prof) ME VJCET, Vazhakulam Po, Ernakulam	9847334344 john.sajan@yahoo.co.in sajan@vjcet.org
41	Muthoot Institute of Technology and Science, Varikoli	Addressing Open Problems in medical domain through artificial intelligence	1. Dr. Jina varghese (Asst. Prof) 2. Chaitanya C (Asst Prof) 3. Jency Thomas (Asst Prof) Dept. Of CSE Muthoot Institute of Technology and Science, Varikoli	9544135560 jinavarghese@mgits.ac.in 9446200253 chaitanyaa@mgits.ac.in 9961769130 jencythomas@mgits.ac.in
42	Nehru College of Engineering and Research Centre, Thrissur	Innovative Facets of Internet of things (IoT)	P Rajkumar (Sr. Asst Prof) ECE Nehru College of Engineering and Research Centre, Thrissur	04884-281670, 7012592056 Qraj2014@gmail.com
43	Universal Engineering College, Irinjalakuda	FDP on Advancements in Technology for Interdisciplinary Research	1. Ms. Reshma PS (Asst Prof) ECE Chelsy Joy (Asst prof) ECE Universal Engineering College, Irinjalakuda	9539639243 9496284226
44	SCMA School of Engineering and Technology, Karukutty	Psychology for Engineers	1. Ms. Febini M Joseph (Asst. Prof) Basic science and Humanities 2. Ms. Surya KA (Asst Prof) SCMA School of Engineering and Technology, Karukutty	0484-2450330/9400670824 febini@scmsgroup.org
45	Federal Institute of Science and Technology Mookkannoor PO, Ernakulam-683577	Hands on training on design of power Electronics systems	1. Surya Natarajan (Asst. Prof) 2. Jyothi GK (Asst. Prof) Federal Institute of Science and Technology Mookkannoor PO, Ernakulam-683577	9447035484 suryanatarajan@fisat.ac.in 9495253081 jyothigk@fisat.ac.in
46	Sahrdaya College of Engineering and Technology, PB No 17, Kodakara, Thrissur-680684	Recent advances and research challenges in electric vehicle system design	1. Dr. V. Vijikala (Assoc. Prof) 2. Ms. Drisya K Sasi (Asst. Prof) Sahrdaya College of Engineering and Technology, PB No 17, Kodakara, Thrissur-680684	7598354405 vijikalav@sahrdaya.ac.in 8281968939 drisyaksasi@sahrdaya.ac.in



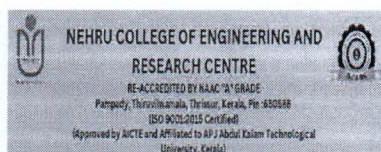
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FDP BROCHURE



FACULTY DEVELOPMENT PROGRAMME
on
INNOVATIVE FACETS OF INTERNET OF THINGS

Sponsored by:

**A P J ABDUL KALAM TECHNOLOGICAL
UNIVERSITY**

Organized by:

**DEPARTMENT OF ELECTRONICS and COMMUNICATION
ENGINEERING**



MARCH 01, 2023

to

MARCH 07, 2023

9:00 AM- 4:00 PM

Aryabhata Seminar Hall

Mode: Offline



Chief Patrons

Adv. Dr. P. Krishnadas

Chairman & Managing Trustee, NGI

Dr. P. Krishnakumar

CEO & Secretary, NGI

Patrons

Prof. Dr. Ambikadevi Amma T

Dean, Student Affairs, NCERC

Prof. Dr. Karibasappa Kwadiki

Principal, NCERC, Pampady

Convener

Prof. Sajitha A.S

HoD i/c, ECE Dept, NCERC

Co-Convener:

Prof. P. Rajkumar

Professor, ECE Dept, NCERC

About the College

Nehru College of Engineering and Research Centre (NCERC), situated on the banks of the river Nila, in the lush, pristine surroundings of Pampady, is a premier Engineering College that has pioneered Engineering Education, Research and Training in the Private Sector. Established in 2002 by the founder Chairman Late Shri P.K. Das, NCERC is committed to provide world class quality education in Engineering and Research. Dedicated to the service in the realm of technical education in Kerala, it is a ISO 9001:2015 certified Institution, approved by All India Council of Technical Education (AICTE), affiliated to APJ Abdul Kalam Technological University (KTU) and is accredited by National Assessment and Accreditation Council (NAAC). Over the years NCERC has grown to become one of the best self financing Colleges in Kerala.

About the ECE Department

The Department of ECE was established in 2002 with an intake of 60 students for undergraduate (B.Tech) programme and enhanced to an intake of 120 students from 2006. The department offers two Postgraduate (M.Tech) programmes, namely, "Applied Electronics & Communication System" from 2011 with an intake of 26 students and " VLSI Design" from 2012 with an intake of 18. Highly qualified, experienced and dedicated staff members are the backbone of the Department. The Department always strives hard to satisfy the knowledge thirst of both students and faculties by organizing workshops / technical talks / conferences and so on. The faculty members are actively involved in research work and regularly present/ publish their work in various national and international conferences / journals.

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The ECE Department is proud to host state-of-the-art Laboratories in the area of VLSI, Embedded Systems, Microprocessor and Microcontrollers, Circuits, Analog and Digital Communication and Microwave and Optical communication.

The ECE department formally inaugurated the ECHOS (The ECE Association) in 2009 and under this banner many extra-academic activities have been conducted such as paper presentation, quiz competition, workshops and seminars. Also the department has two magazines that have been developed on the basis of the creative skills of our imaginative students. There is an Embedded Club that meets on monthly basis to discuss innovative projects and publication based activities. Department is closely associated with INSTITUTE OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE) Palakkad Centre to organize technical events like guest lecture, seminars and conferences.

Objectives and Context

To get to understand and convey the Emerging Trends of the 21st Century in Internet of Things (IoT) in relation to various sectors of Industry, Medicine, Agriculture and Smart Automation.

About the Topic

Internet of Things (IoT) has revolutionized Industry, Medicine, Agriculture and its very critical to be aware of the latest cutting edge developments that have rocked the humanity and awoken a passion for smart automation in almost every sector of development.

Benefits to Faculty

The Faculty members attending this programme will be exposed to the latest trends in IoT, that will be of paramount importance in all sectors of development. Highly knowledgeable and skilled resource persons from different parts of India, would over the period of five days, churn and invigorate a vivid interest and passion for IoT, through their worthy sessions.

Session Outline

1. Rudiments of IoT and Innovative trends
2. Heterogeneous Networking for IoT.
3. Advances in IoT in the 21st century.
4. Internet of Medical things
5. IoT Enabled Smart Charging Stations for Electric Vehicles.
6. Role of IoT in Renewable energy systems.

Probable Speakers

Sessions will be chaired by Eminent Resource Persons from Industry, Research Agencies and Academia with adequate research exposure and experience in the aforesaid topics.

Dates To Remember

FDP Date: 01-03-'23 to
07-03-'23

Last date for online submission:
24-02-'23

Last date for fully filled hardcopy form
submission:
28-02-'23

REGISTRATION & INSTRUCTIONS

The FDP is open to Faculty and Research scholars from institutions recognized affiliated to A P J Abdul Kalam Technological University and no Registration Fees will be charged.

Please fill the Registration form for participation attached along with signature and seal of Head of Institution.

Also the participants are requested to register using the below link :

<https://forms.gle/oQfu8DVenzqZsXp7>

Maximum participants allowed as per norms: 30

Selection basis: First come first serve

Intimation: By e-mail

Mode of conduct: Offline

Participants have to attend all sessions compulsorily and fill the feedback form at end of each session to be eligible for certificate.

You may also scan this QR code for tentative online registration.



For more Details do feel free to contact...

Prof. Sajitha A.S
Asst Prof & HoD i/c ECE Dept, NCERC
MOB:- 75598 51335
hodeceab@ncerc.ac.in

Prof. P.Rajkumar
Professor, ECE Dept, NCERC
MOB:- 97463 66196
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Prof. Lisa C
Asst Prof, ECE Dept, NCERC
MOB:- 97443 07890
lisababu@gmail.com



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NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (Re - Accredited by NAAC with 'A' Grade) (Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University, Kerala)		DECLARATION OF APPLICANT	ENDORSEMENT BY AUTHORITY
APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY Sponsored FACULTY DEVELOPMENT PROGRAMME on "Innovative Facets of Internet of Things (IoT)" 01-03-2023 to 07-03-2023 DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING (ECE)		I hereby declare that I have read all the instructions mentioned in the FDP brochure and agree to them. Also, the details furnished above are true to the best of my knowledge. If selected, I shall attend the course for the entire duration.	I recommend that Dr./Mr./Ms./Mrs. (Please select) _____ is an employee of our Institute and he/she is permitted to attend the Five days FDP on "Innovative Facets of IoT", if selected.
Name _____	Place: _____	Place: _____	Place: _____
Designation _____	Date: _____	Date: _____	Date: _____
KTU ID Number _____	Signature of the Applicant		Signature of the Head of the Institution
Department _____			
Teaching Experience (in years) ____			
Industrial Experience (in years) ____			
College Name & Address _____ _____ _____ _____			(Institute Seal)
Mobile No _____			
Email Id _____			




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FDP SCHEDULE



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



Schedule of the **KTU FACULTY DEVELOPMENT PROGRAMME 2022-'23**
INNOVATIVE FACETS OF INTERNET OF THINGS (IOT)

DAY AND DATE	SESSION-1 9:00-11:00 AM		SESSION-2 11:10-01:10 PM		SESSION-3 2:00-4:00 PM (Incl. Tea break at 3:00 pm)
DAY-1 WEDNESDAY 01-03-2023	INAUGURATION INAUGURAL CEREMONY Inaugural Address: Prof.Dr. Meenatchi Sundaram, Instrumentation and Control Engineering, Manipal Institute of Technology, Manipal, Karnataka 94485 47155 meena.sundar@manipal.edu	TEA BREAK 11:00-11:10AM	Technical Session by Prof.Dr. Meenatchi Sundaram, Manipal Institute of Technology, Manipal, Karnataka. <u>Topic: Internet of Things: Demystified.</u> 94485 47155 meena.sundar@manipal.edu	LUNCH BREAK 1:10 - 2 PM	Dr. D. Vijayakumar Associate Professor CMR College of Engg. & Tech. Telangana Ph: 9500524075 <u>Topic: Inter Communications Things in IoT</u>
DAY-2 THURSDAY 02-03-2023	Prof. Dr. John Chembukkavu HOD / EEE IES COLLEGE OF ENGINEERING, KERALA 94478 08065 eeehod@iesce.info <u>Topic: IoT Enabled Smart Charging Stations for Electric Vehicles</u>		Prof. Dr. John Chembukkavu HOD / EEE IES COLLEGE OF ENGINEERING, KERALA 94478 08065 eeehod@iesce.info <u>Topic: IoT Enabled Smart Charging Stations for Electric Vehicles (Cont...)</u>		Mr. Suresh P Assistant Professor, Al Alamdeen Engineering College - Kulappully, Shornur, Palakkad <u>Topic: Hands-on IoT</u> Ph: 96333 91398



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DAY AND DATE	SESSION-1 9:00-11:00 AM		SESSION-2 11:10-01:10 PM		SESSION-3 2:00-4:00 PM (Incl. Tea break at 3:00 pm)
DAY-3 FRIDAY 03-03-2023	Mr. Jinesh Manager, Innovation and Entrepreneurship Cell Jyothi Engineering College Hands-on IoT Ph: 94000 86378		Mr. Jinesh Manager, Innovation and Entrepreneurship Cell Jyothi Engineering College Hands-on IoT (Cont.) Ph: 94000 86378		Mr. Jinesh Manager, Innovation and Entrepreneurship Cell Jyothi Engineering College Hands-on IoT (Cont.) Ph: 94000 86378
DAY-4 SATURDAY 04-03-2023	Dr Nalini Joseph Professor, School of Computing Bharath University, Chennai. dmalini.cse@bharathuniv.ac .in 94447 51976 <u>Topic:</u> Internet of Medical things	TEA BREAK 11:00- 11:10AM	Dr M. Latha Associate Professor Department of ECE DMI College of Engineering, Chennai. 94441 15181 latha.cce@dmice.ac.in <u>Topic:</u> Internet of Medical Applications	LUNCH BREAK 1:10 - 2 PM	Dr Nalini Joseph Dr M. Latha Hands-on session <u>Topic:</u> Insurrections in Medical IoT
DAY-6 TUESDAY 07-03-2023	Mr. Rajiv T R Asst. Professor, Dept of ECE, Christ College of Engineering, Thrissur. 85470 23663 <u>Topic:</u> Rudiments of modern IoT		Mr. Rajiv T R Asst. Professor, Dept of ECE, Christ College of Engineering, Thrissur. 85470 23663 <u>Topic:</u> Rudiments of modern IoT (Cont...)		Technical Session plus Valedictory Function... Dr. Daison Stallon S Asst. Professor SG Department of EEE NIET, Coimbatore, TN nietdaisonstallon@nehrucoll eges.com 94879 45477 <u>Topic:</u> Monitoring Renewable energy parameters through IoT



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
KTU FACULTY DEVELOPMENT PROGRAMME 2022-'23
INNOVATIVE FACETS OF INTERNET OF THINGS (IOT)
WED 01-03-2023 to TUE 07-03-2023



REGISTRATION LIST OF PARTICIPANTS

Sl.No	NAME OF PARTICIPANT	COLLEGE NAME
1.	Anoop Kumar M V	Nehru College of Engineering and Research Centre
2.	Leya M S	Nehru College of Engineering and Research Centre
3.	Radhika K	Nehru College of Engineering and Research Centre
4.	Betsy Joy	Nehru College of Engineering and Research Centre
5.	Vishnu Prabha N Kaimal	Nehru College of Engineering and Research Centre
6.	Linta A T	Nehru College of Engineering and Research Centre
7.	Silja Varghese	Nehru College of Engineering and Research Centre
8.	Midhun Raj P K	Nehru College of Engineering and Research Centre
9.	Neethu M	Nehru College of Engineering and Research Centre
10.	Smitha Unnirishnan	Nehru College of Engineering and Research Centre
11.	Sanish V S	Jawaharlal College of Engineering and Technology
12.	Remya K P	Jawaharlal College of Engineering and Technology
13.	Jisha K V	Jawaharlal College of Engineering and Technology
14.	Vijitha G	Jawaharlal College of Engineering and Technology
15.	Haseena P	Jawaharlal College of Engineering and Technology
16.	Manoj M	Al Ameen Engineering College
17.	Abeena A	Al Ameen Engineering College
18.	Ajeena A	Al Ameen Engineering College
19.	Bindhu P	Al Ameen Engineering College
20.	Remya K V	Al Ameen Engineering College
21.	Shiju C R	IES College of Engineering
22.	Shanoob T H	Malabar College of Engineering and Technology
23.	Asambi V	Malabar College of Engineering and Technology
24.	Roopa V G	Malabar College of Engineering and Technology
25.	Jaision C V	Malabar College of Engineering and Technology
26.	Sayana M	Jawaharlal College of Engineering and Technology
27.	Kamarudheen M	Malabar College of Engineering and Technology
28.	Anooja B	Malabar College of Engineering and Technology
29.	Rashmi V R	Malabar College of Engineering and Technology
30.	Anjoe C John	Malabar College of Engineering and Technology



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KTU SPONSORED FDP ON "INNOVATIVE FACETS OF INTERNET OF THINGS (IOT)"
INAUGURAL SESSION AND GROUP PHOTOGRAPH

The Inauguration was held on day-1, i.e., Wed 01-03-2023 from 9:00 am to 11:00 am. The dais was occupied by the Respected Principal of NCERC, Chief Guest, HoD i/c of ECE department **Mrs. Sajitha A.S** and the Programme Coordinator **Prof. P.Rajkumar**. The Chief Guest for the day was **Prof. Dr. Meenatchi Sundaram**, Centre for Instrumentation and Control Engineering, Manipal Institute of Technology, Manipal. The Programme commenced with the prayer song. The Welcome address was by **Mrs.Sajitha A.S**, HoD i/c ECE department, who welcomed all the people assembled in the Seminar Hall.



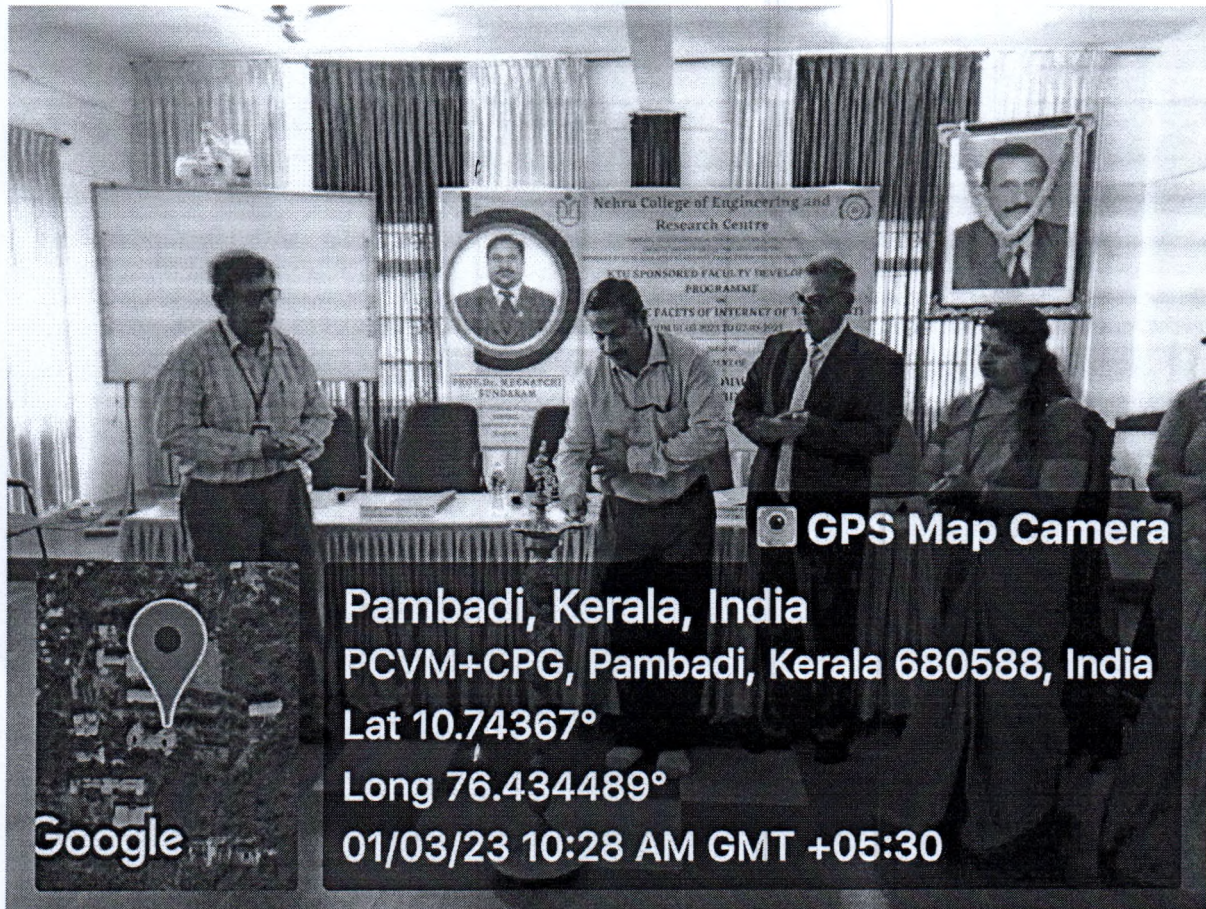
Then there was the ceremonial Lighting of the Lamp and the dignitaries on the dais lend a hand in lighting the lamp, thereby dispelling the darks clouds of despair and anxiety.



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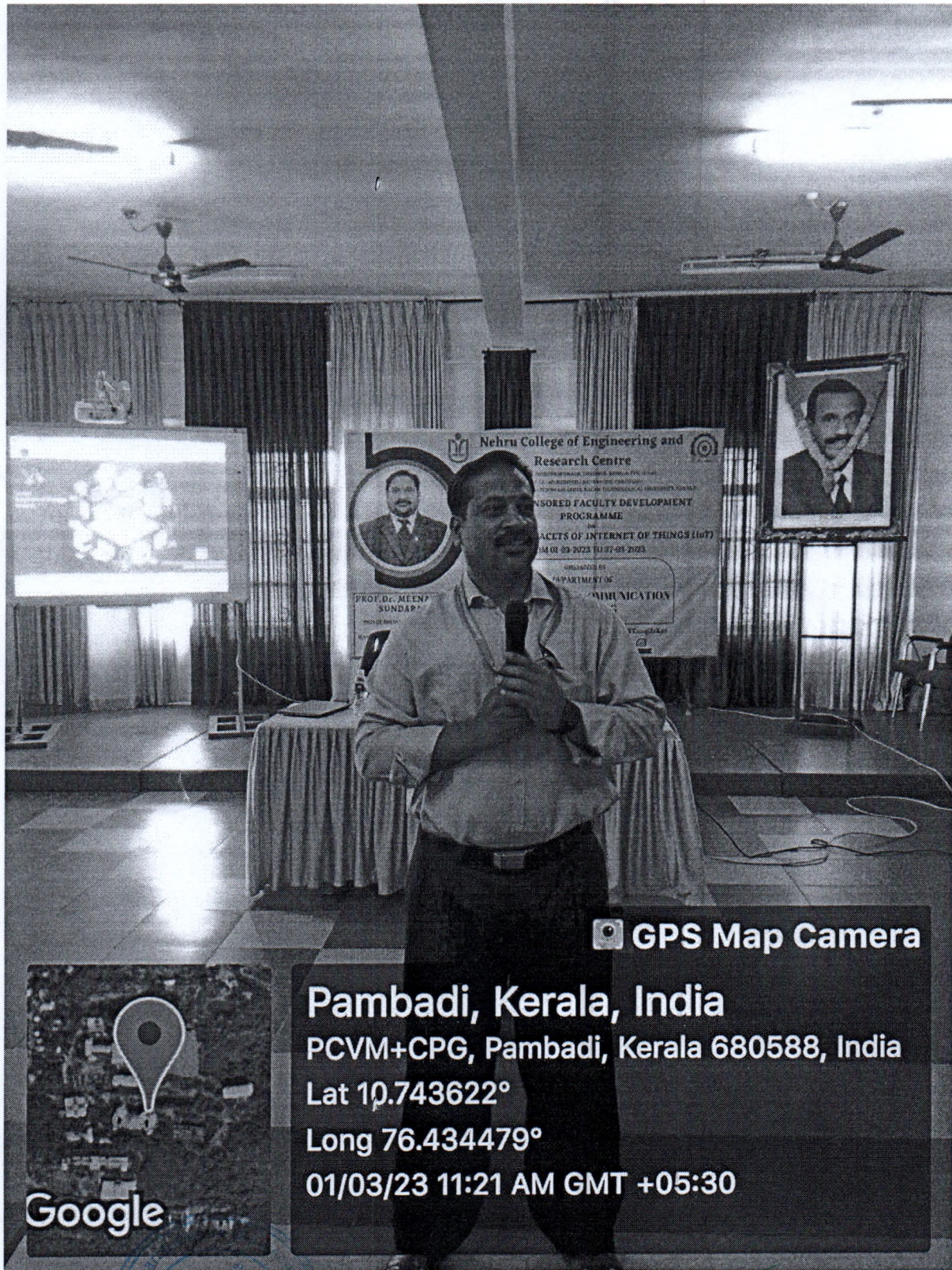
The Chief Guest, **Prof. Dr. Meenatchi Sundaram** formally inaugurated the Programmes and gave a very impressive speech, highlighting the craze for IoT in today's generation and its voracious applications in various domains.



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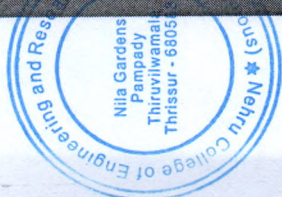
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PCVM+CPG, Pambadi, Kerala 680588, India

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Long 76.434479°

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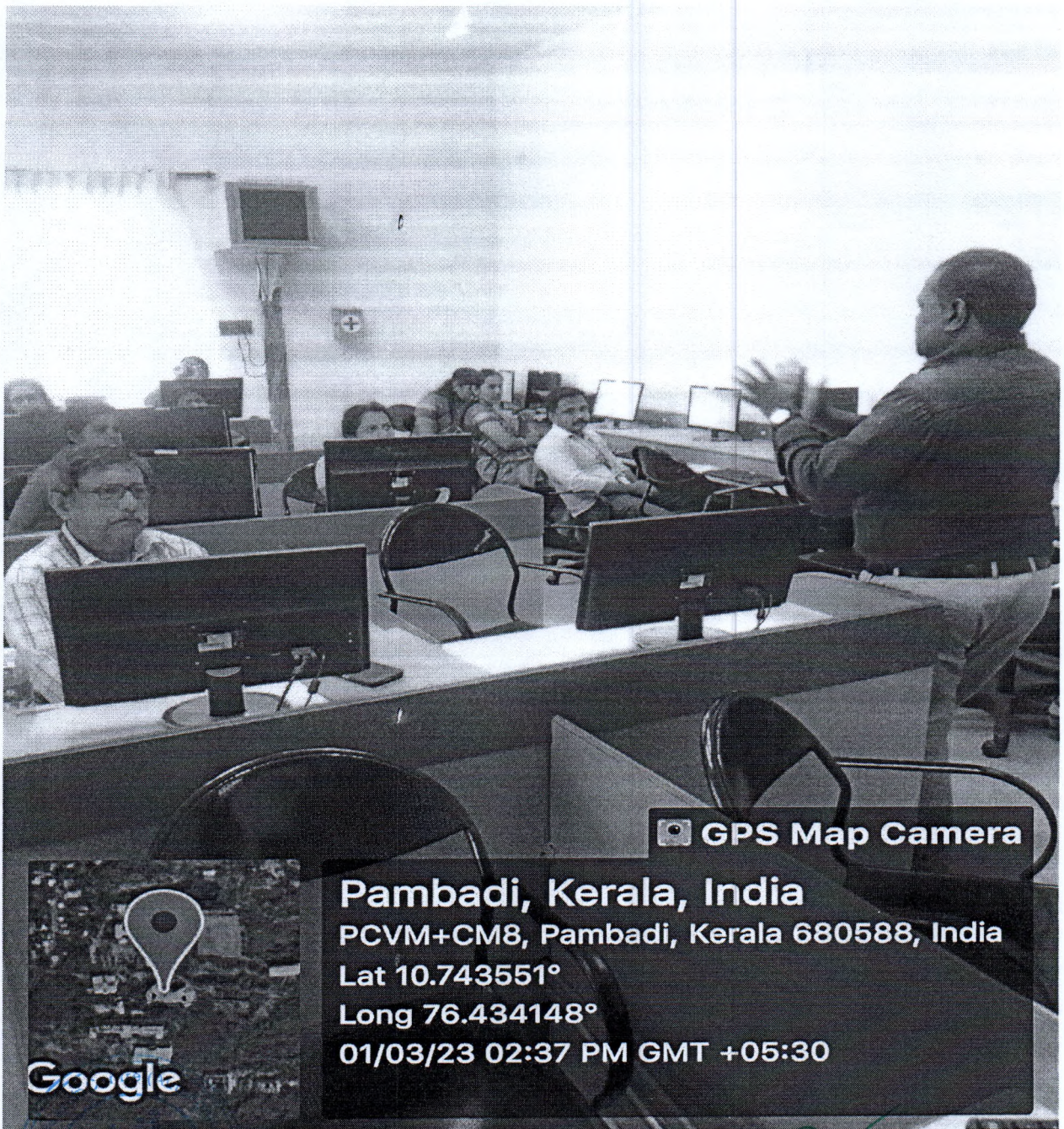
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On the same day, i.e., Wed 01-03-2023 the second technical session from 2:00 pm-4:00pm was headed by Dr. Vijayakumar, Associate Professor, CMR College of Engineering, Telengana, who delivered a session on 'Innovative Inter Communication Things in IOT and Research Potentials in IoT'. The session was very useful for the participants, several eagerly interacted with the Session head in asking about possible research avenues.



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PCVM+CM8, Pambadi, Kerala 680588, India

Lat 10.743551°

Long 76.434148°

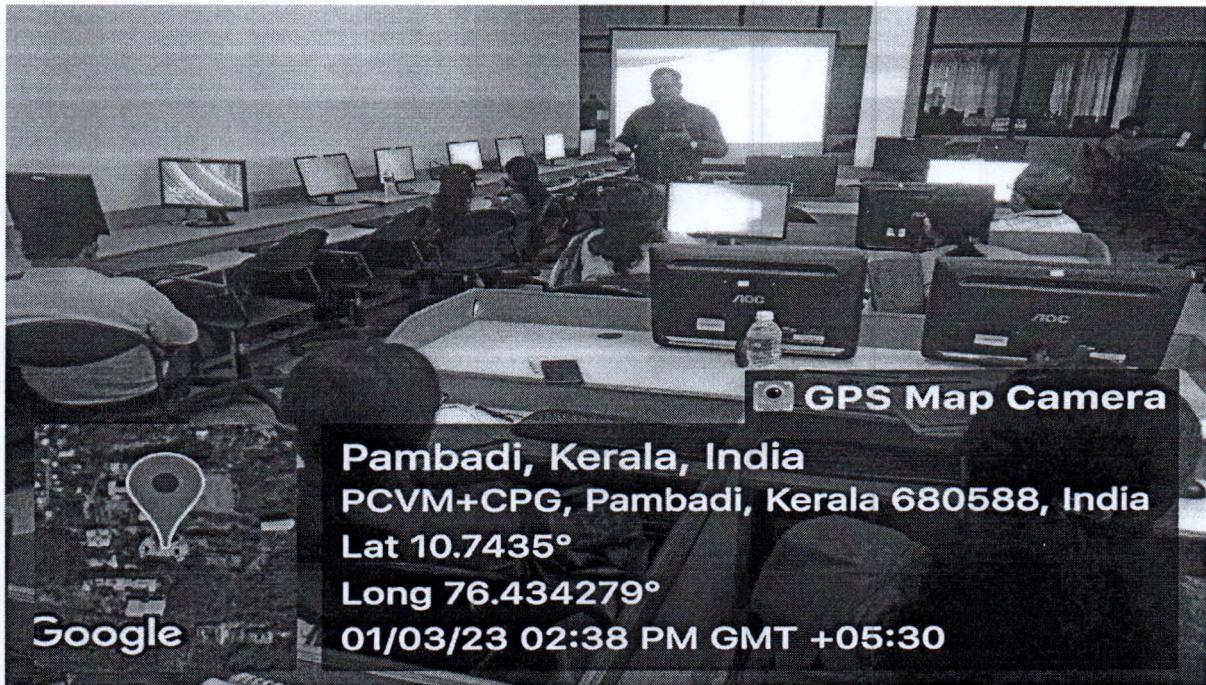
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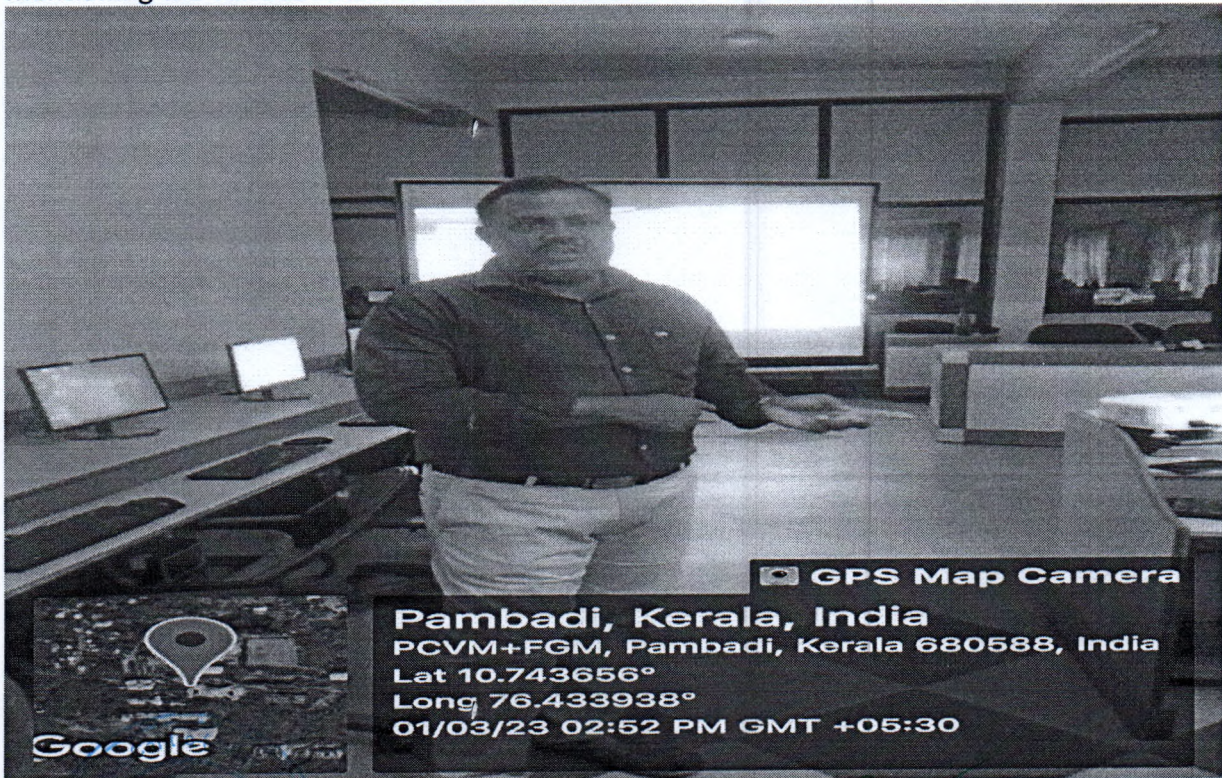
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The resource person very diligently gave the presentation and he was very steadfast in mentioning the various research avenues available for research in the broad areas of IoT.



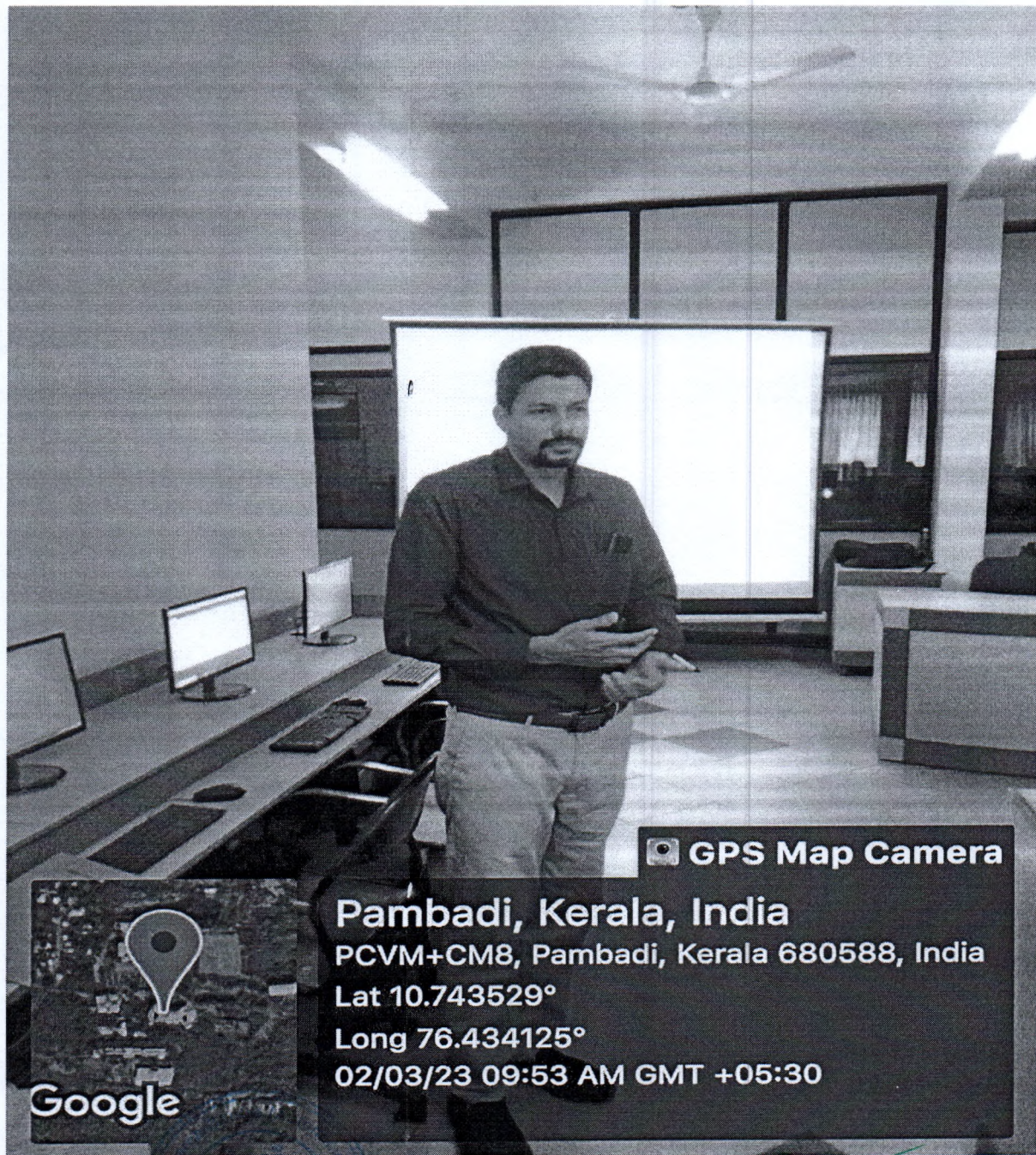
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On day-2, i.e., Thu 02-03-2023 the first technical session from 9:00 am to 11:00 am was chaired by Prof.Dr.John Chembukavu, HoD of EEE dept, IES College of Engineering, Thrissur. His session was on "Smart Charging Stations for Electric Vehicles". He delved at length into the innovative issues in EV smart charging related IoT components for the near future and the audience was held spell bound by his session.



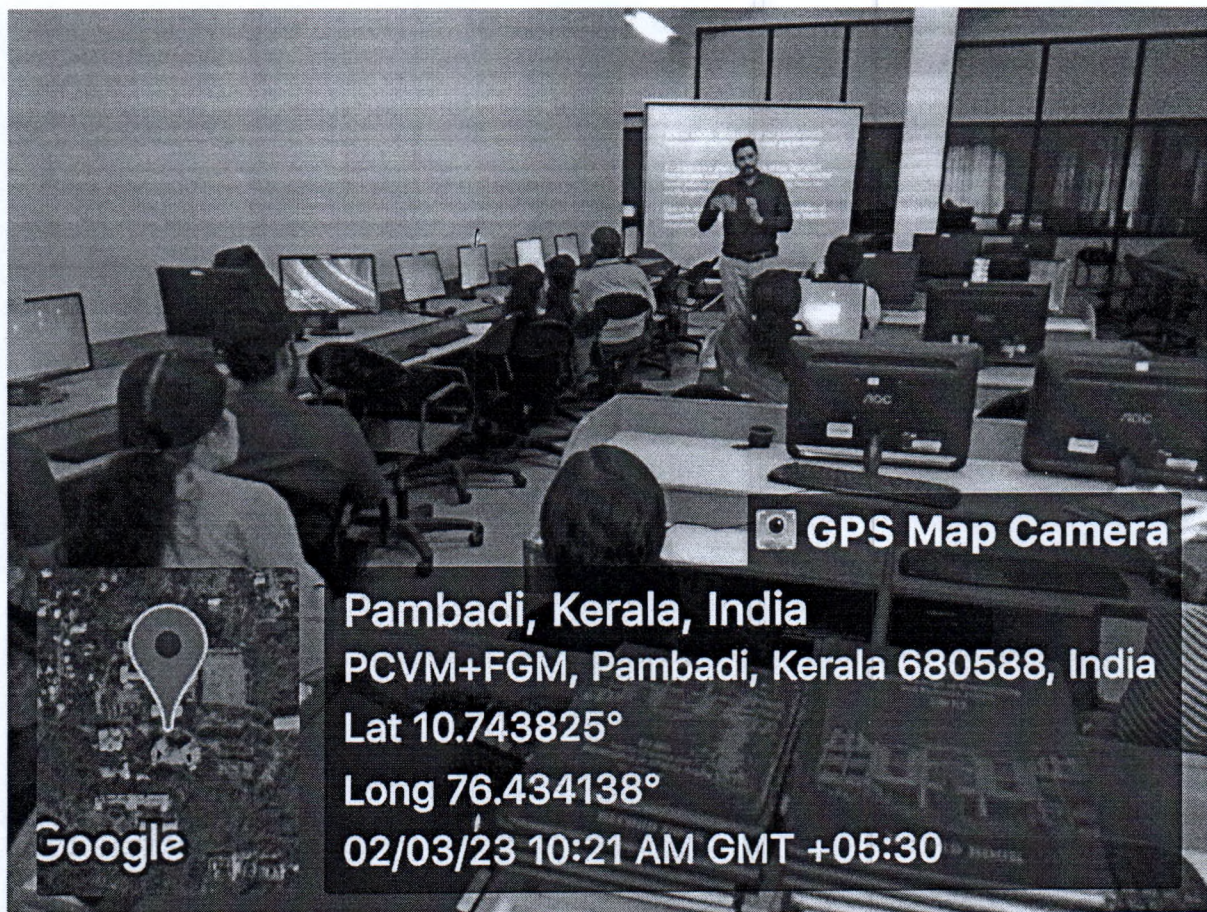
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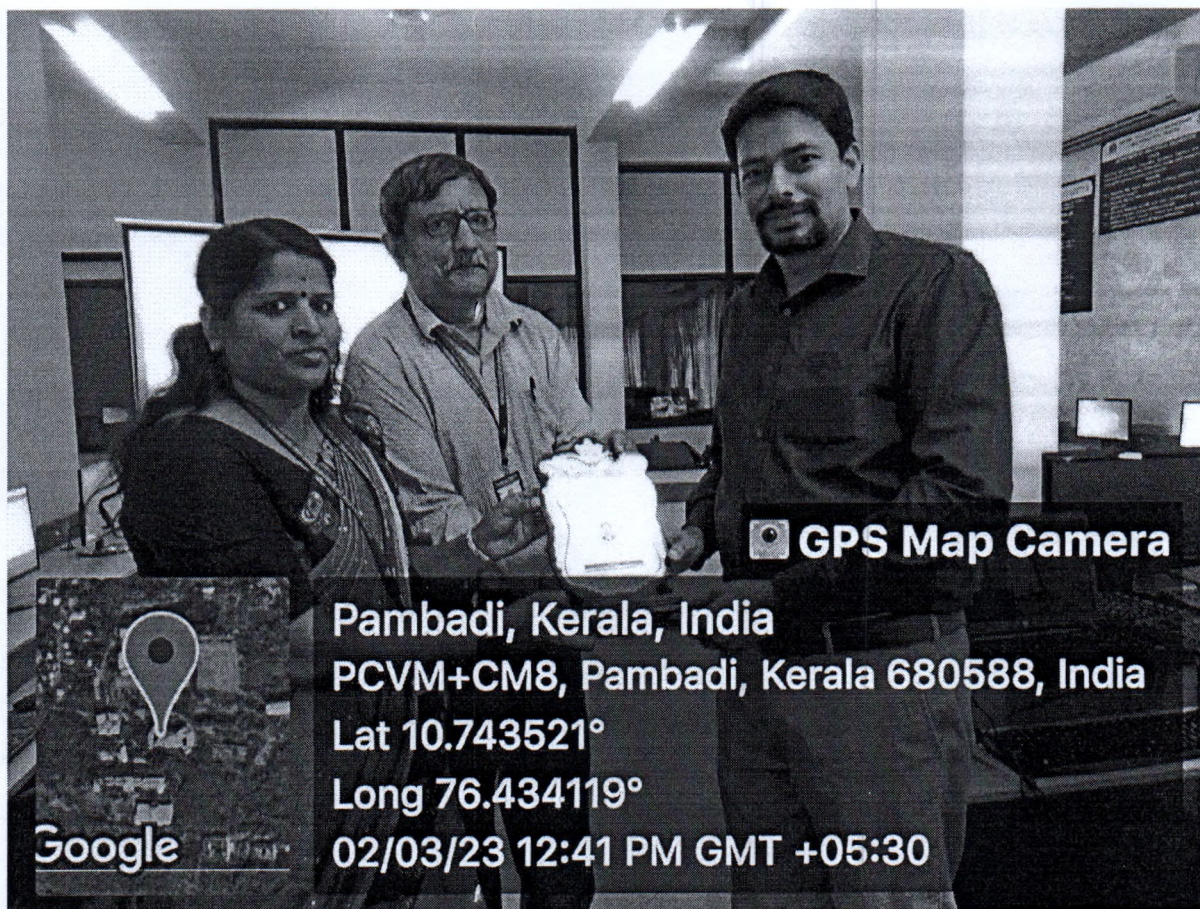
On day-2, i.e., Thu 02-03-2023 the second technical session from 11:10 am to 1:00 pm was chaired again by Prof.Dr.John Chembukavu, HoD of EEE dept, IES College of Engineering, Thrissur, who exhibited indomitable energy. His session was a continuation of his earlier one on "Smart Charging Stations for Electric Vehicles". This session looked into the practical matters of the implementations and the fine tuning of the IoT for efficient deployment.



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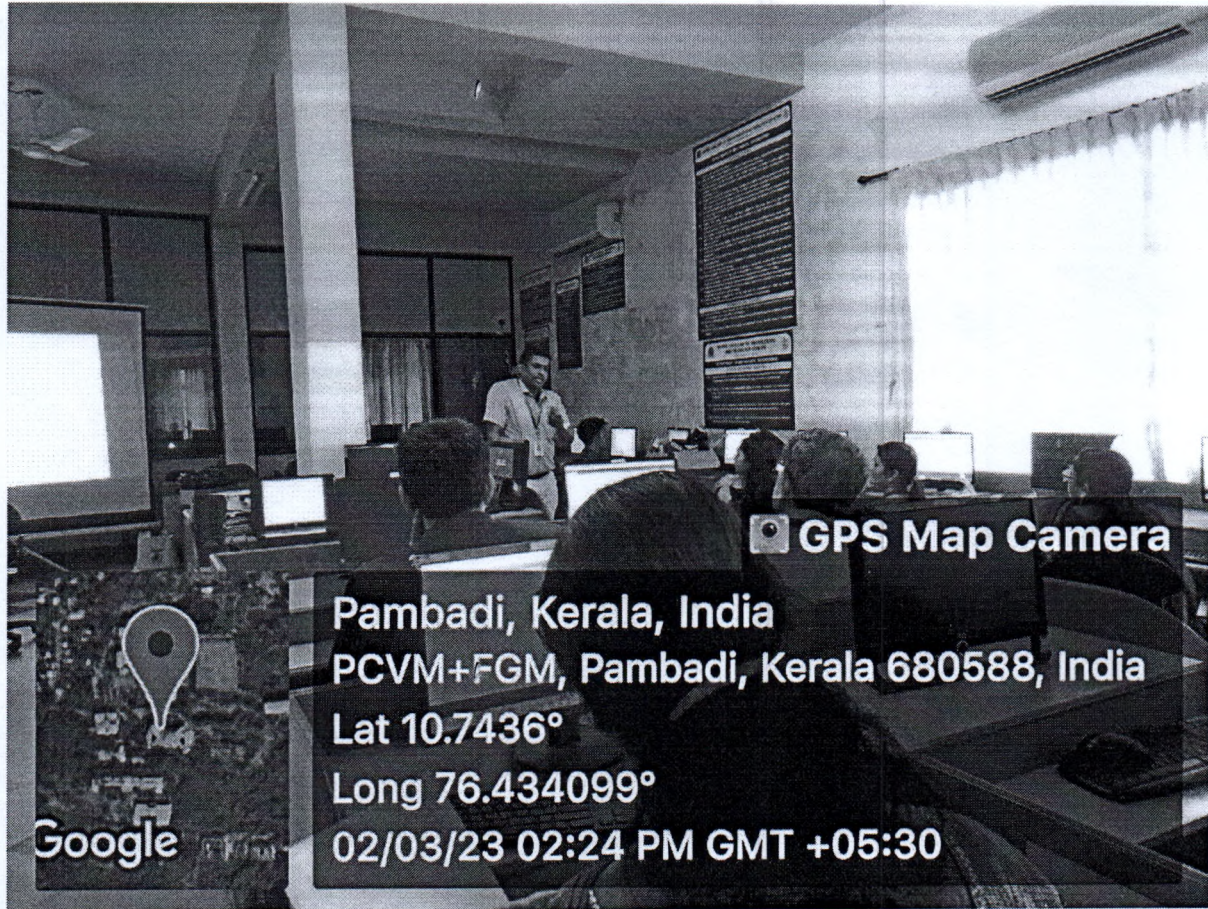
On day-2, i.e., Thu 02-03-2023 the third technical session from 1:00 pm to 4:00 pm was chaired by Shri Suresh P, Assistant Professor, ECE dept, Al Ameen College of Engineering, Kulappully, who handled a practical hands-on session was on Internet of Things with emphasis on Aurdino board connectivity and smart sensing of peripherals via coding.




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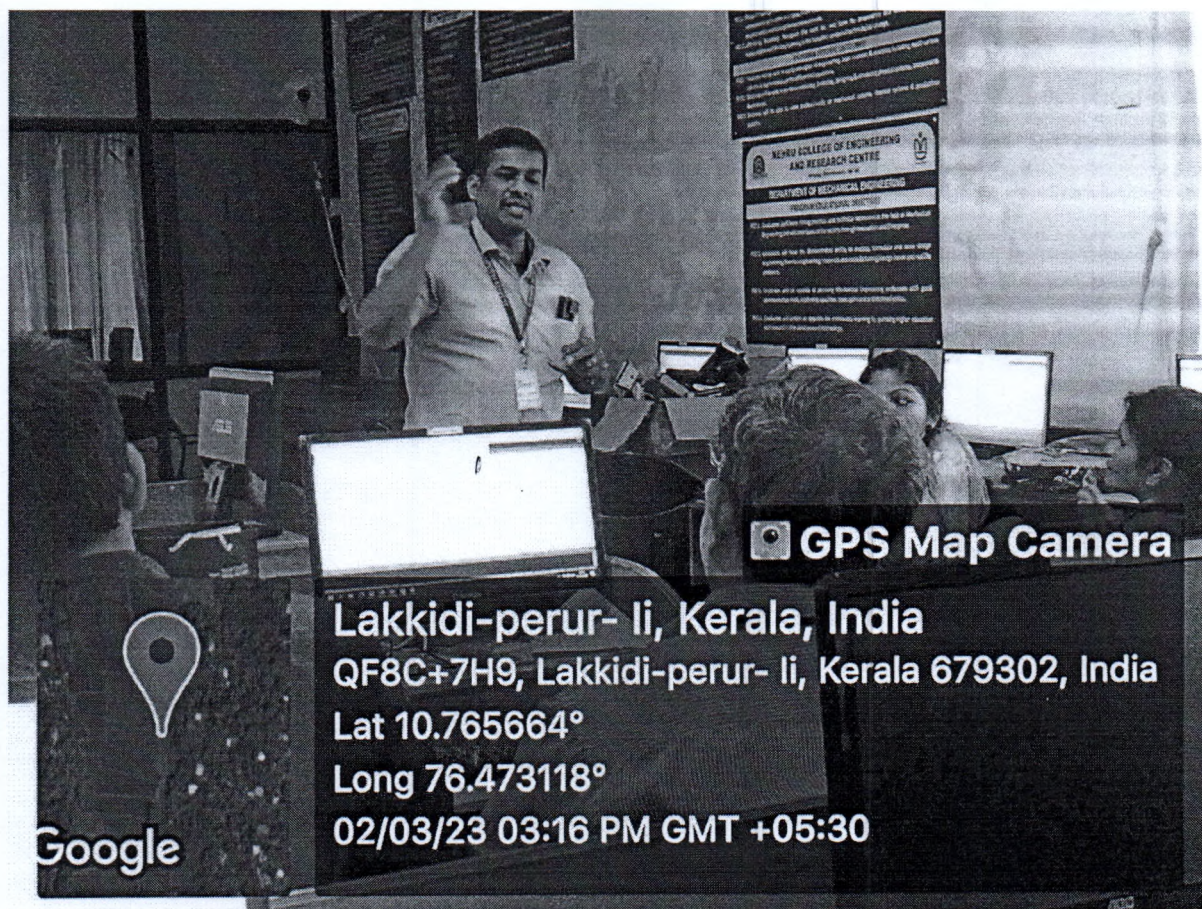
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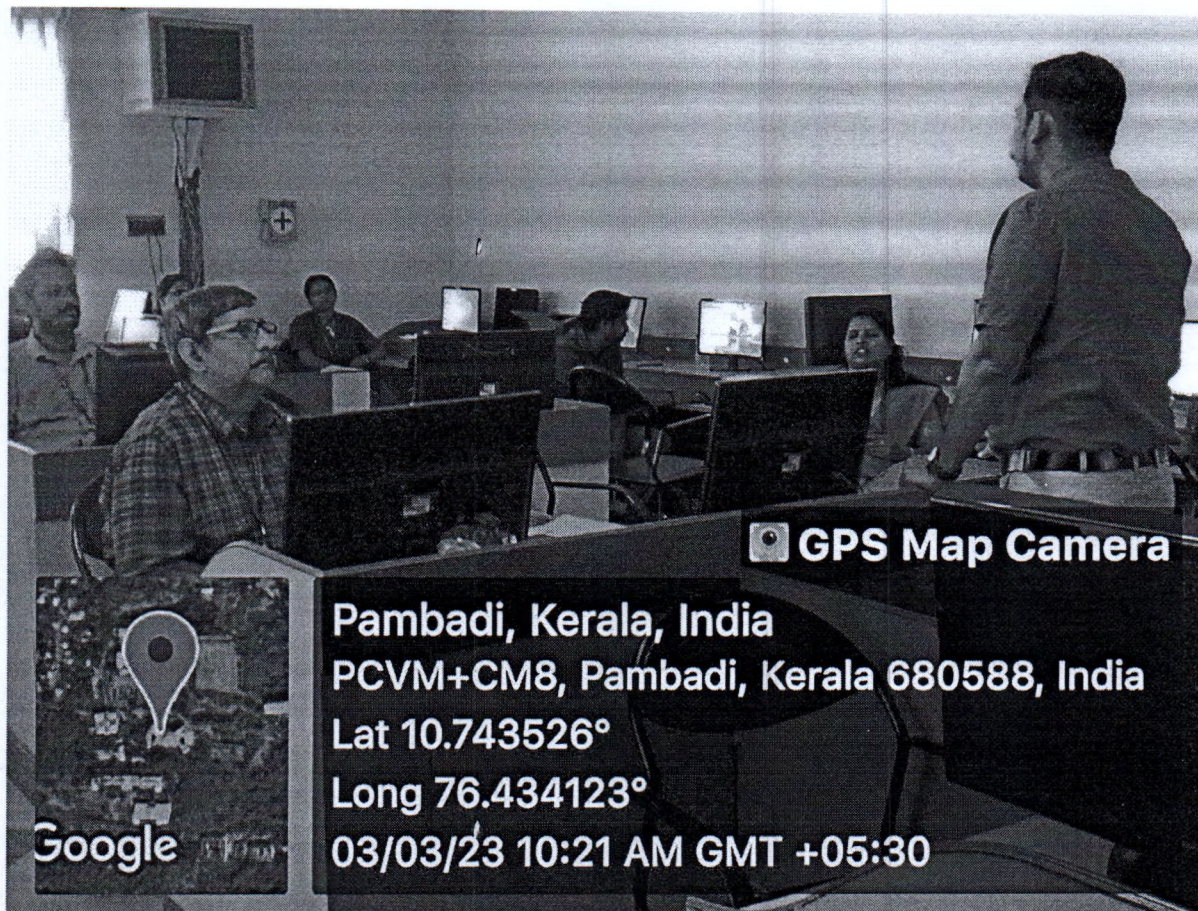
On day-3, i.e., Fri 03-03-2023 the first technical session from 9:00 am to 11:00 am was chaired by Mr. Jinesh P, Innovations and Entrepreneurship cell Manager, Jyothi College of Engineering, Cheruthuruthi. His session was on “Practical aspects of IoT using Aurdino and Raspberry pi ”



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Long 76.434123°
03/03/23 10:21 AM GMT +05:30

Google

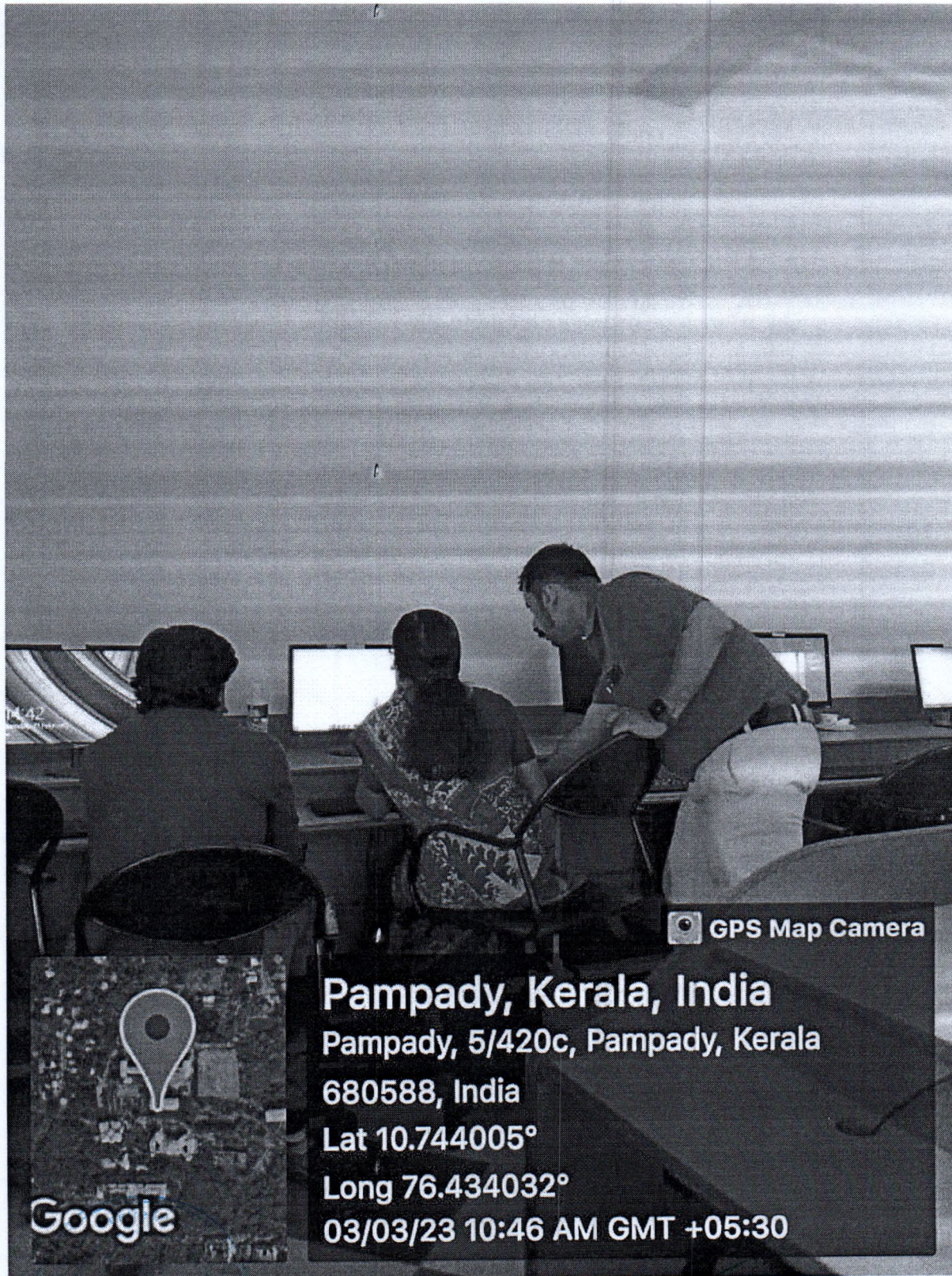
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Pampady, Kerala, India
Pampady, 5/420c, Pampady, Kerala
680588, India
Lat 10.744005°
Long 76.434032°
03/03/23 10:46 AM GMT +05:30



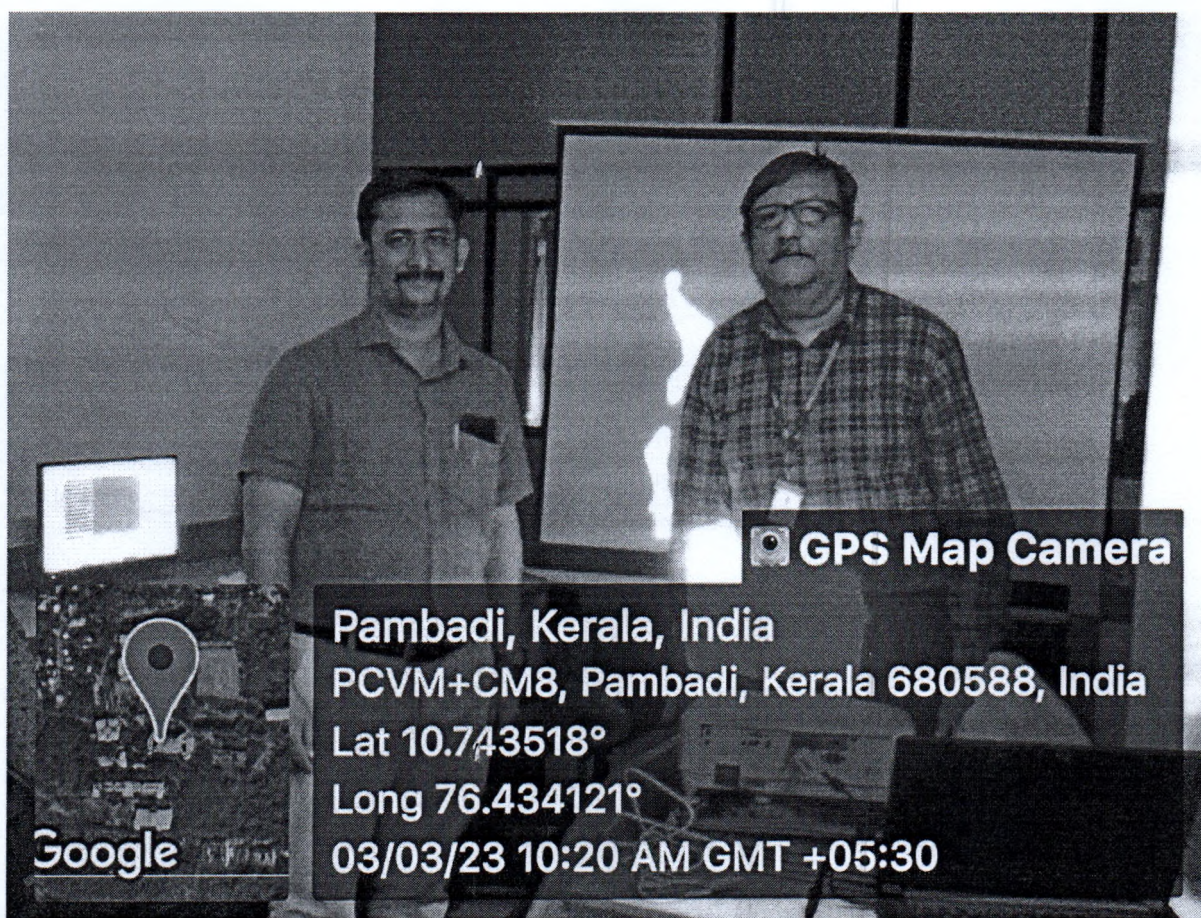
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On day-3, i.e., Fri 03-03-2023 the third technical session from 1:00 pm to 4:00 pm was once again chaired by Mr. Jinesh P , Jyothi College of Engineering, Cheruthurthi., who exhibited indomitable energy and continued with the practical hands-on session was on “Practical aspects of IoT using Aurdino and Raspberry pi ”



On day-4, i.e., Sat 04-03-2023 the first technical session from 9:00 am to 11:00 am was chaired by Prof.Dr. Nalini Joseph, Professor, Bharath University, Chennai . Her session was on “Internet of Medical Things”. Madam rocked the stage with her power packed presentation, telling about all recent innovations after Covid-19 that has awakened the medical fraternity to work in close with the technical persons and engineers to enable instant human touch less diagnosis and treatment via the backbone of IoT.



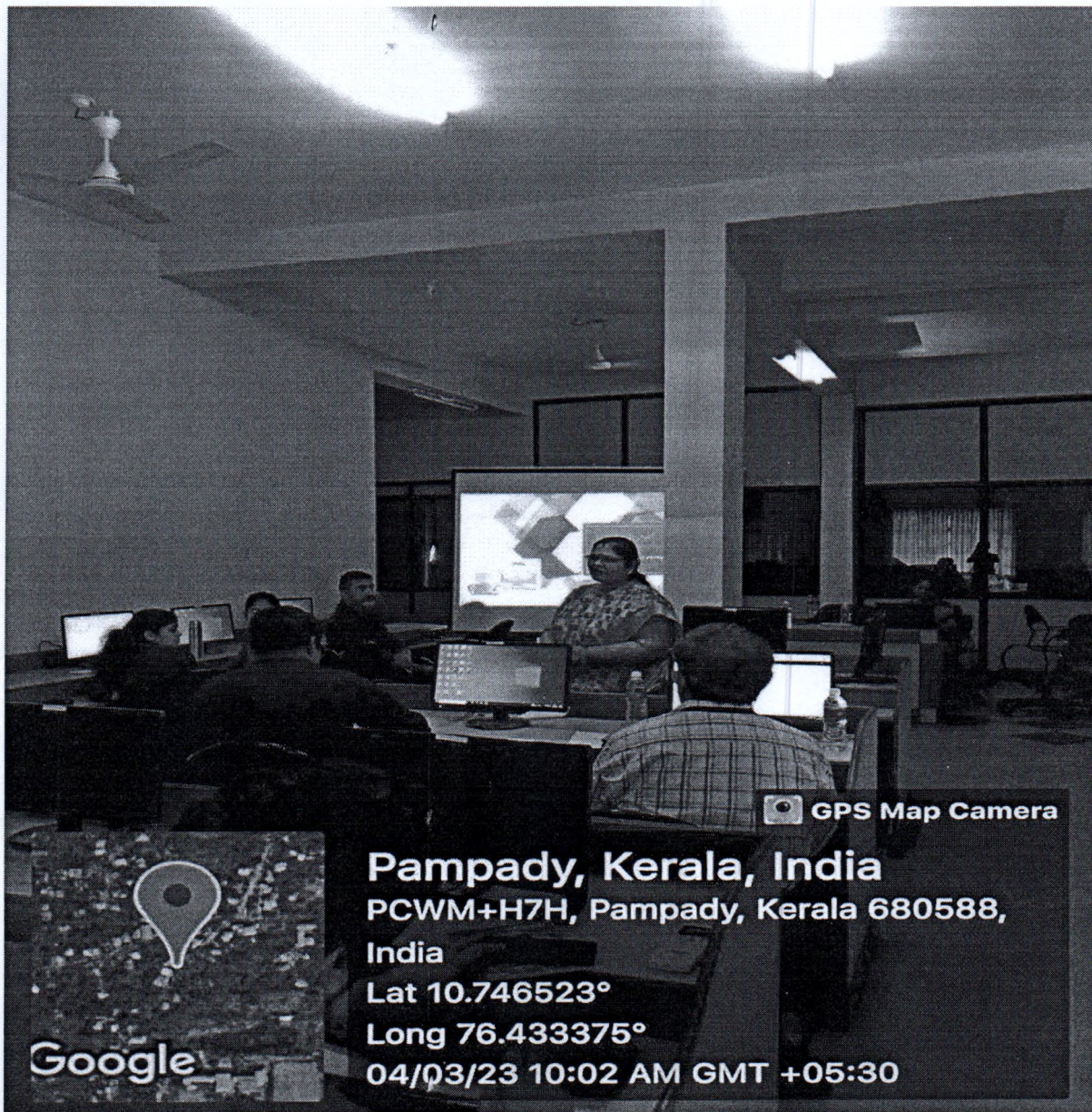
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Our most enthusiastic participant Mr. Anoop Kumar gave a very generous feedback about the session. He clearly highlighted the areas stressed by the resource person in today's quest for achieving Internet of Medical Things to the fullest possible capability.



Pampady, Kerala, India

PCWM+H7H, Pampady, Kerala 680588,
India

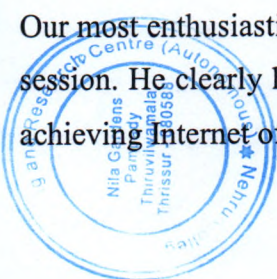
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Long 76.433375°

04/03/23 10:02 AM GMT +05:30

GPS Map Camera

Our most enthusiastic participant Mr. Anoop Kumar gave a very generous feedback about the session. He clearly highlighted the areas stressed by the resource person in today's quest for achieving Internet of Medical Things to the fullest possible capability.



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On day-4, i.e., Sat 04-03-2023 the second technical session from 11:10 am to 1:00 pm was chaired by Prof.Dr. Latha M, Professor, DMI College of Engineering, Chennai . Her session was on “Internet of Medical Applications and recent research trends”. Madam was at her very best in lucid depictions of her expertise in Image processing in explaining the facets of medical treatment via the IoT, with emphasis on EEG and the rudiments of Skull Stripping and cerebrum and cerebellum modelling.



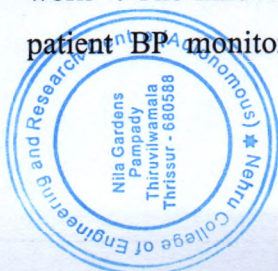
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On day-4, i.e., Sat 04-03-2023 the third technical session from 1:00 pm to 4:00 pm was chaired by their eminent selves, Prof. Dr. Nalini Joseph and Prof. Dr. Latha M, who handled a practical hands-on session was on “ Insurrections in Medical IoT with practical hands-on work ”. The innovative medical miracle in the form a special IoT card/board that supported patient BP monitoring and relay via the Internet, held the whole class of participants



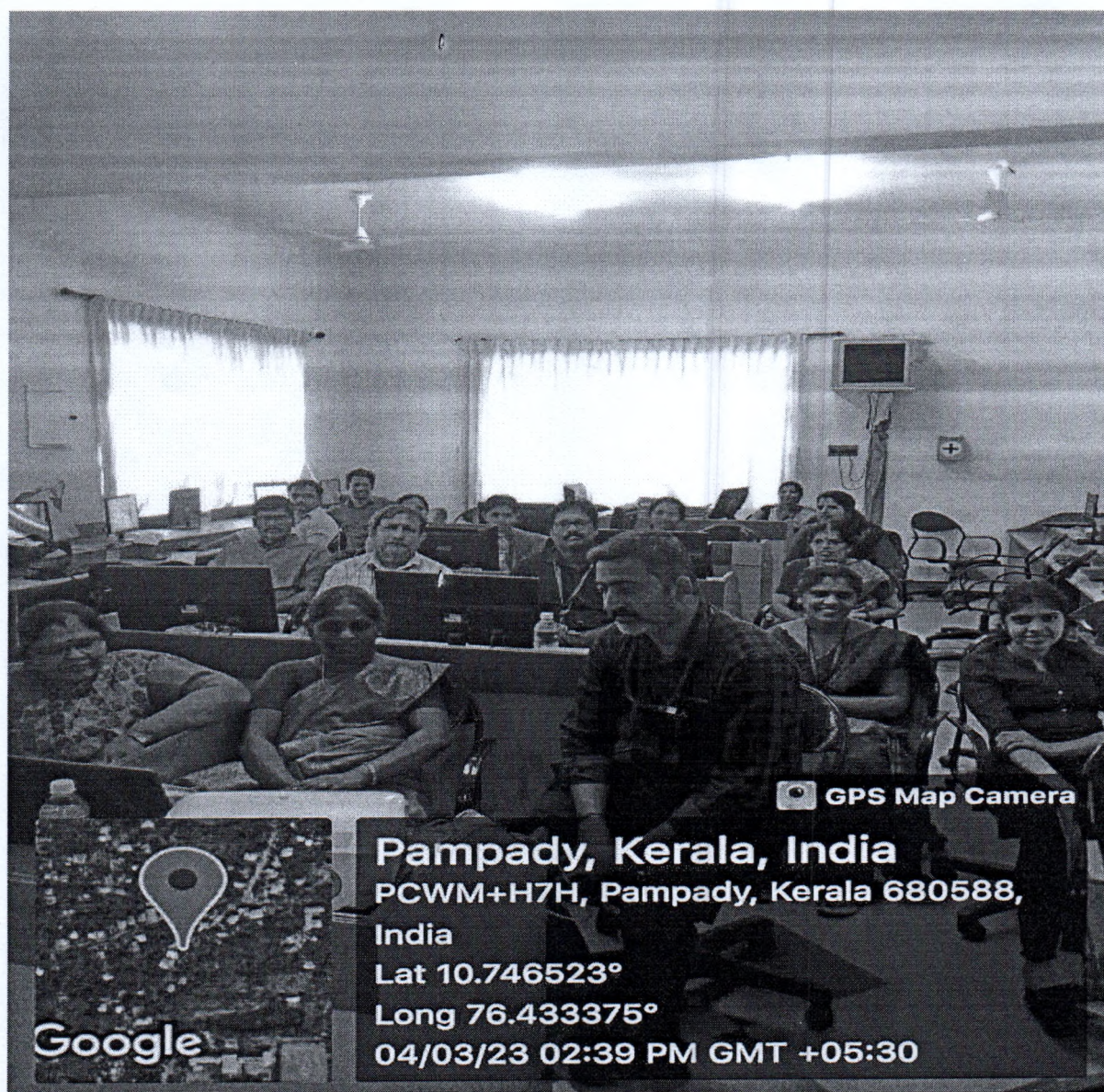
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spellbound! Almost all of the gathered persons got an opportunity to get 'IoT based treated' by the medical card/board.



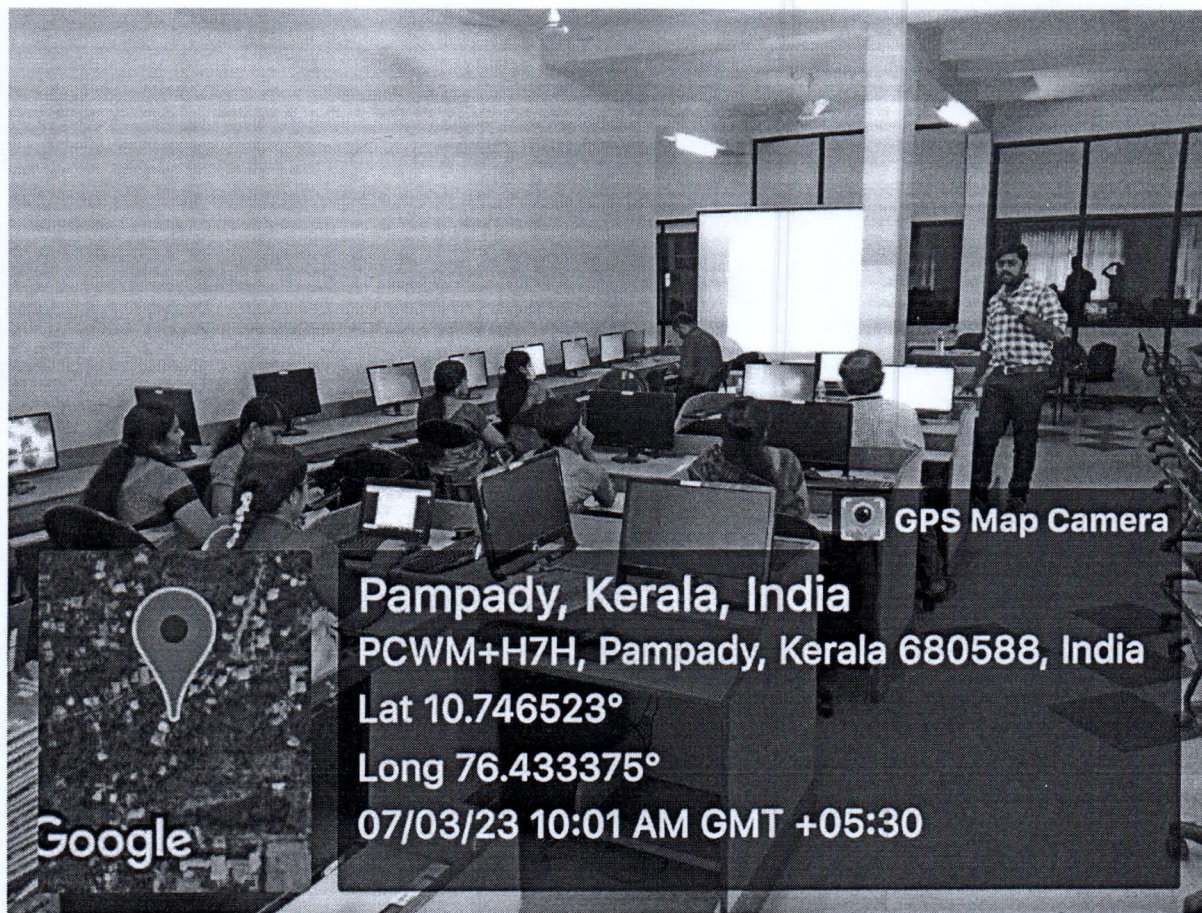
On day-5, i.e., Tue 07-03-2023 the first technical session from 9:00 am to 11:00 am was chaired by Mr. Rajiv T R ,Assistant Professor, ECE dept, Christ College of Engineering . His session was on "Rudiments of IoT and practical hands-on training for IoT."



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On day-5, i.e., Tue 07-03-2023 the second technical session from 11:10 am to 1:00 pm was chaired again by Mr. Rajiv T R, Assistant Professor, ECE dept, Christ College of Engineering. He continued the hands-on session.



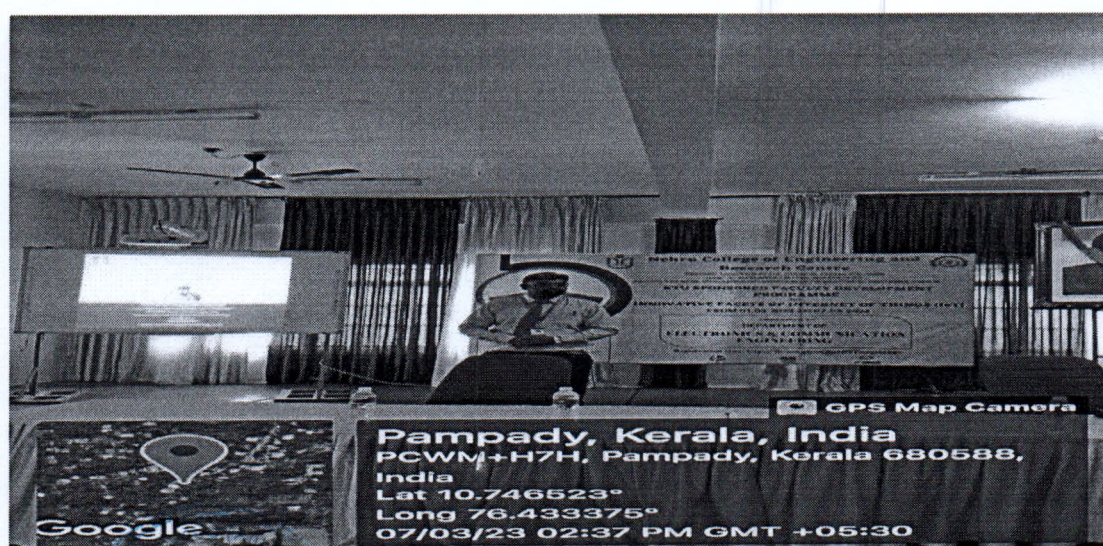

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On day-5, i.e., Tue 07-03-2023 the third technical session from 2:00 pm to 3:00 pm was chaired by Dr. Daison Stallon, Assistant Professor SG, NIET, Walayar who handled a on “ Monitoring Renewable energy parameters through IoT ”. This was a very invigorating session, given the short time, but the energy level exhibited by the resource person and his ease of answering queries was very commendable.



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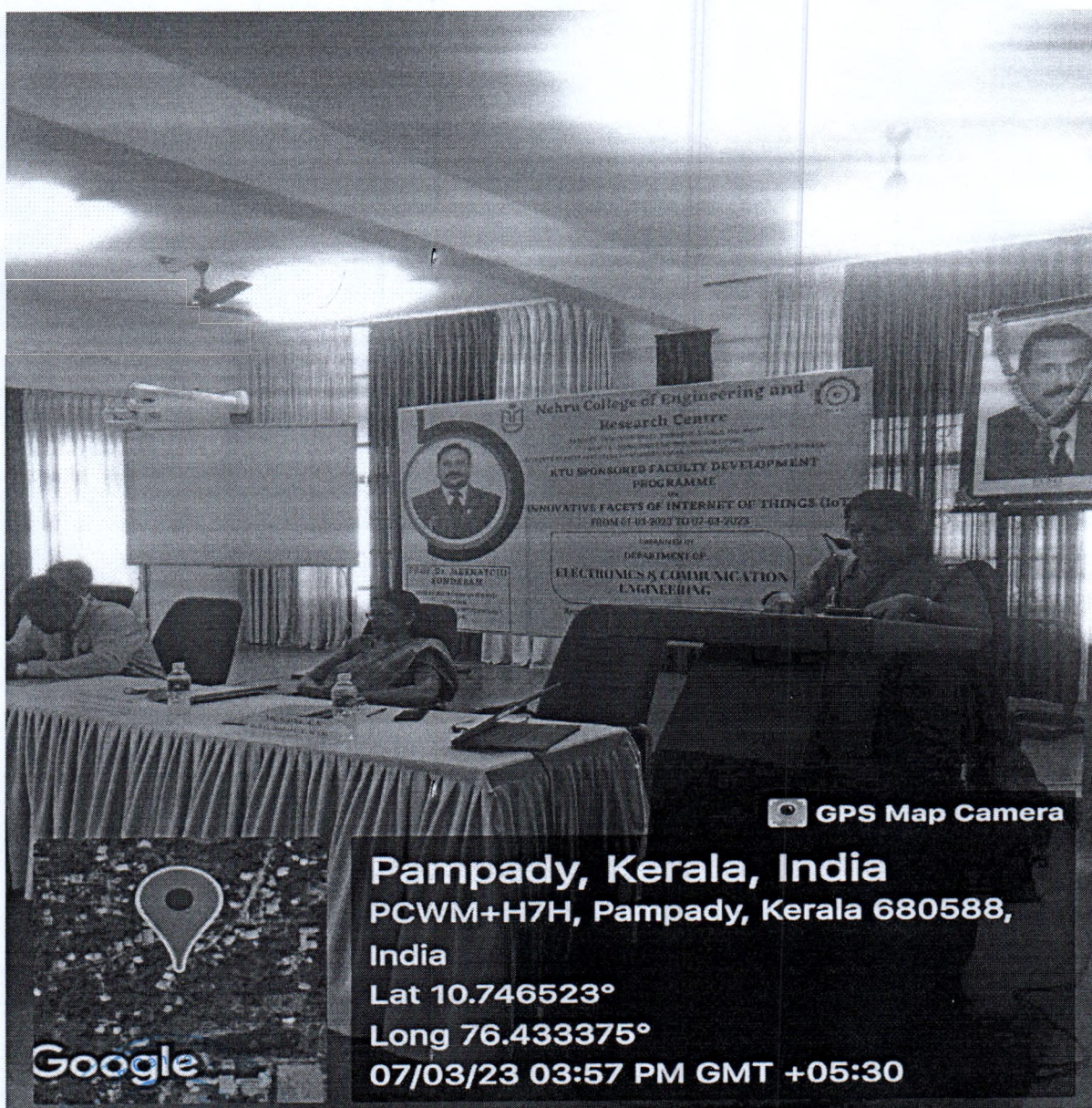


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On day-5, i.e., Tue 07-03-2023 the last session from 3:00 pm to 4:00 pm was devoted to the Valedictory function and certificate distribution. The function was chaired by **Dr. Daison Stallon** and **Prof. Dr. Ambika Devi Amma T**, respected Dean Student Affairs.

The Welcome Address was given by **Mrs. Sajitha A S**, HoD i/c ECE department, who welcomed all the persons and also read the report of the FDP highlighting the various sessions that were successfully conducted.



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The Presidential address was given by **Prof. Dr. Ambika Devi Amma T**, respected Dean Student Affairs, who had all praise for the marvellous efforts of the ECE department in successfully conducting the programme.



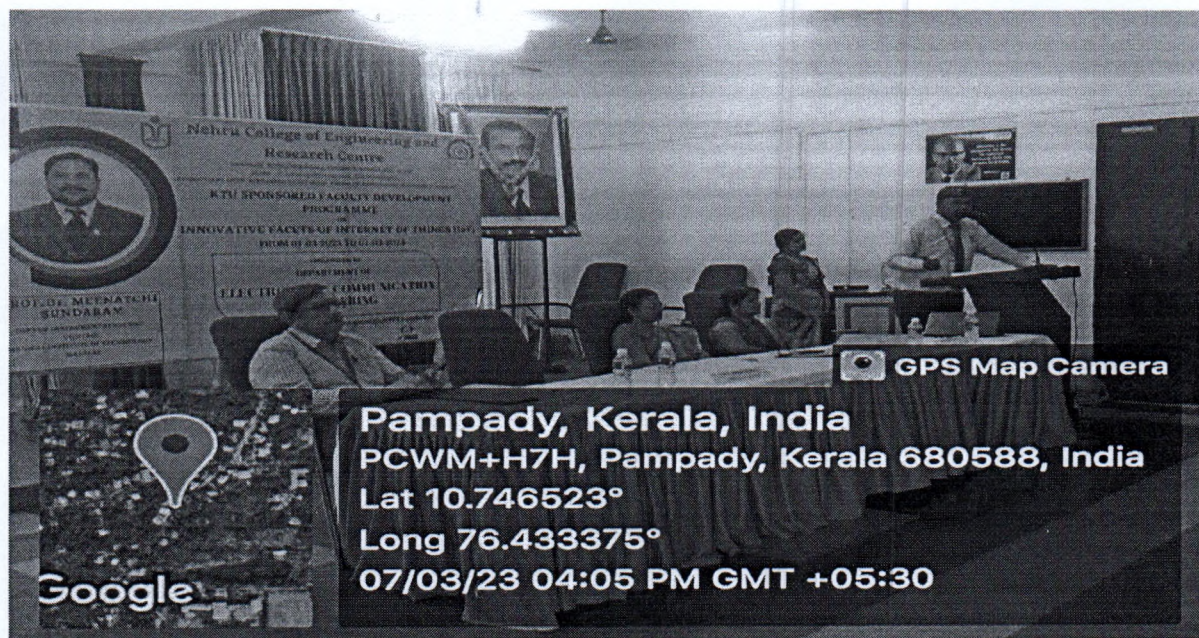
The Chief Guest **Dr. Daison Stallon** gave a very inspiring speech about the need for IoT awareness through such related FDPs.



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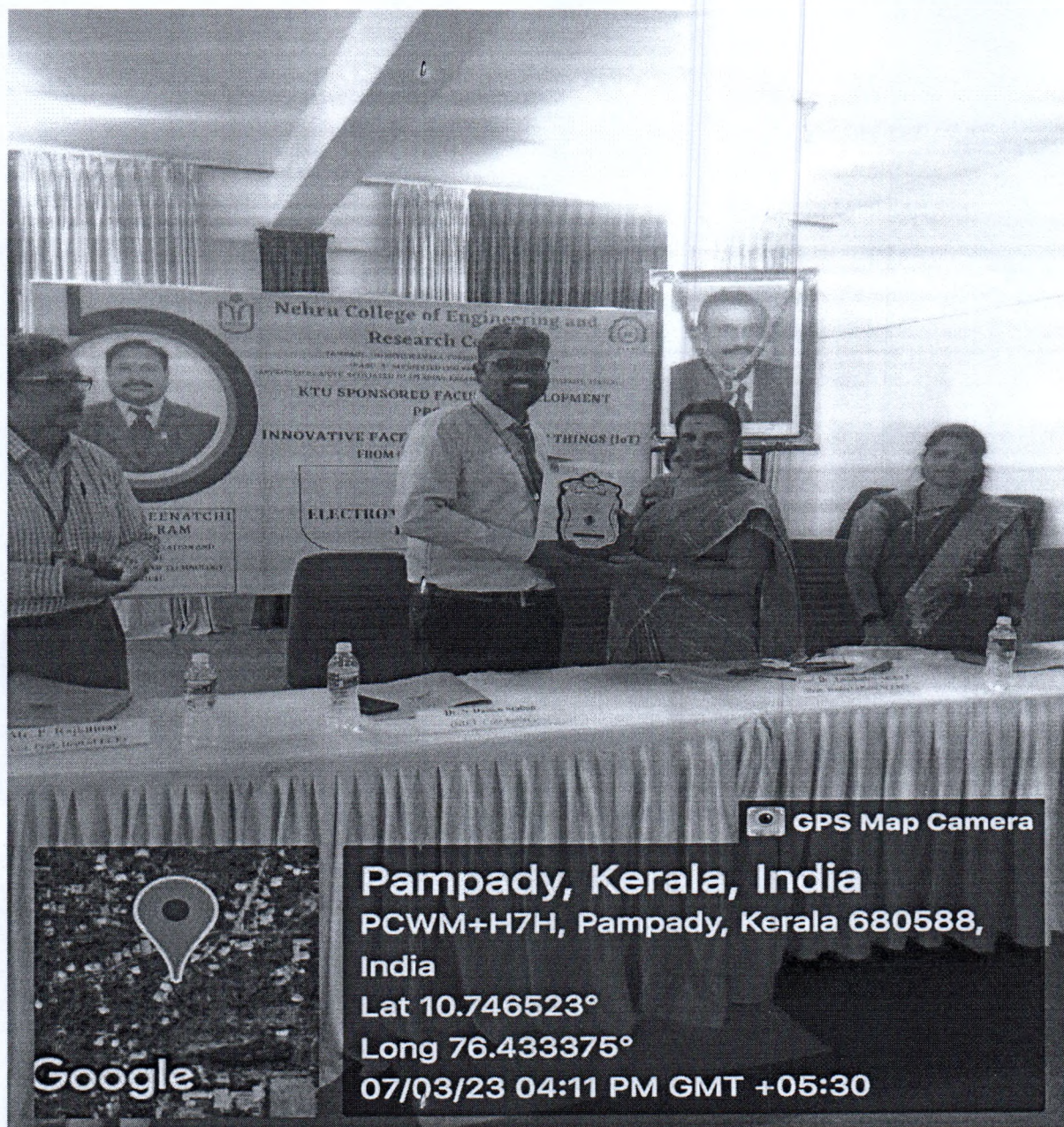
This was followed with a memento presentation to the Chief Guest by the respected Dean Student Affairs.




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Then there was the customary certificate presentation, followed by feedback session by **Mr.Sanish V S**, an eager participant from Jawaharlal College of Engineering and Technology.



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CERTIFICATE OF PARTICIPATION



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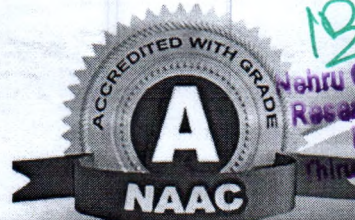
Mr. Jaison CV

of **Malabar College of Engineering and Technology**
has participated in Five days Faculty Development Programme (FDP) on
"Innovative Facets of IoT" during the period 01-03-2023 to 07-03-2023
organized by the Department of Electronics & Communication
Engineering, Nehru College of Engineering & Research Centre,
Pampady, Thrissur.

Mr. Rajkumar P
AP-ECE/Co-Convenor

Ms. Sajitha A S
HOD-ECE/Convenor

Dr. Karibasappa Kwadiki
Principal, NCERC



13 p.m.
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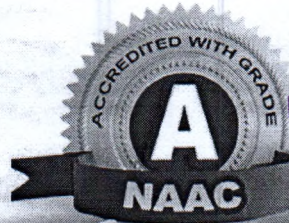
of **Malabar College of Engineering and Technology**

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Mr. Rajkumar P
AP-ECE/Co-Convenor

Ms. Sajitha A S
HOD-ECE/Convenor

Dr. Karibasappa Kwadiki
Principal, NCERC



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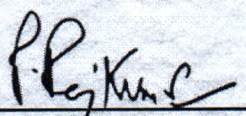


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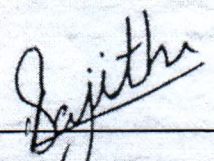
Mr. Shanoob T H

of **Malabar College of Engineering and Technology**

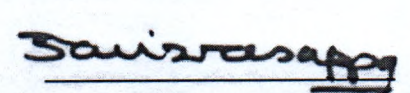
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HOD-ECE/Convenor



Dr. Karibasappa Kwadiki
Principal, NCERC



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Anjoe C John

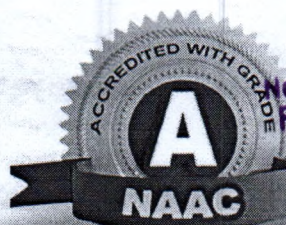
of Malabar College of Engineering and Technology

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Mr. Rajkumar P
AP-ECE/Co-Convenor

Ms. Sajitha A S
HOD-ECE/Convenor

Dr. Karibasappa Kwadiki
Principal, NCERC



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Report of Five Days Faculty Development Programme (FDP) on
RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING

30.01.2023 to 03.02.2023

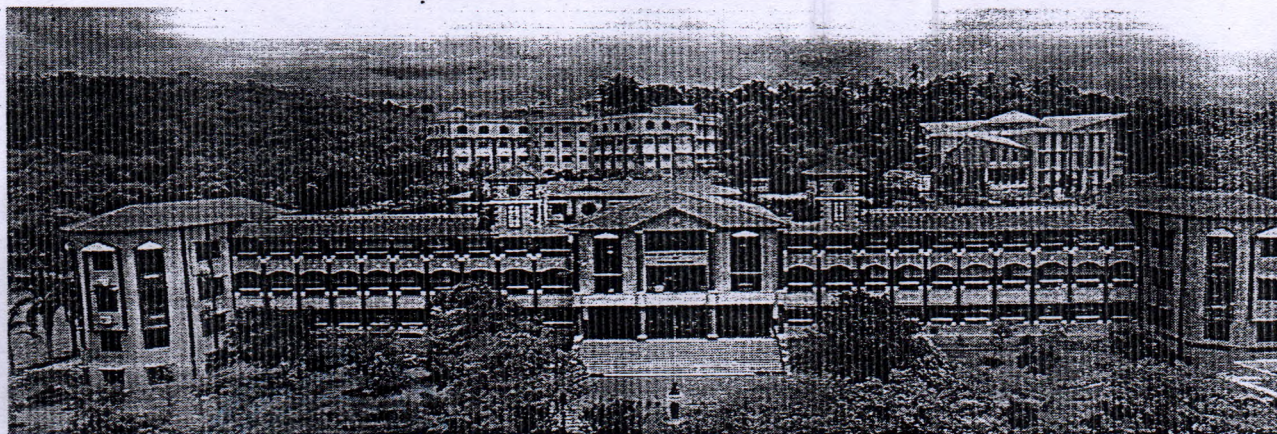
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DEPARTMENT OF
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30.01.2023 to 03.02.2023

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Report prepared by

Neethu M
10/2/23

Ms. Neethu M

Assistant Professor & FDP Course coordinator

Department of Mechatronics Engineering, Nehru College of Engineering and Research Centre

Verified by

Dr. Bobby N D

Dr. Bobby N D

Professor & Head

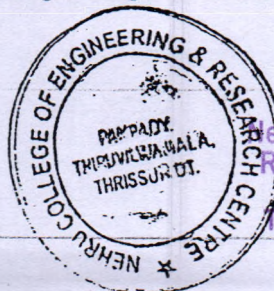
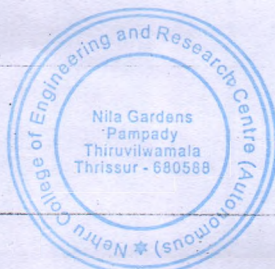
Department of Mechatronics Engineering, Nehru College of Engineering and Research Centre

Approved by

Dr. Ambikadevi Amma T

Dr. Ambikadevi Amma T, FDP Centre coordinator

Principal, Nehru College of Engineering and Research Centre



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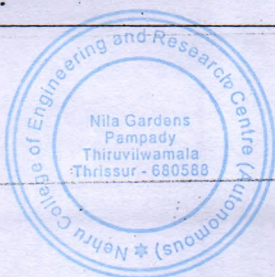
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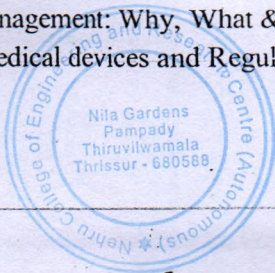
INTRODUCTION

The Department of Mechatronics Engineering, NCERC has organized a 5 days Faculty Development Programme (FDP) sponsored by APJ Abdul Kalam Technological University in offline mode from 30/01/23 to 03/02/23.

The title of the FDP is **Recent Trends of AI in Biomedical Engineering**. This FDP focused to introduce the state-of-the-art concepts and practices of AI techniques in Biomedical images to the participants. It started with the fundamentals of Artificial Intelligence, Machine learning and subsequently discussed advanced methods. This FDP was designed to give comprehensive understanding on the application of AI & ML in Biomedical images in solving the research problems and successfully completed. Upon completion, the participants are now able to use AI & ML techniques in Biomedical images in their future research work.

Course Contents

- Day 1 (30.01.2023)
 - Introduction to Machine Learning: approaches and its applications
 - Deep Learning: Introduction and overview
 - An introduction to Reinforcement Learning and deep reinforcement learning
- Day 2 (31.01.2023)
 - Deep Learning for Biomedical Image Processing
 - Understanding and reprocessing biomedical Images using python
 - Medical Image segmentation using deep learning
- Day 3 (01.02.2023)
 - Introduction to Python for Deep Learning.
 - Applications of DL techniques in Image processing
 - Deep Learning for Biomedical Data Analysis - Hands on Using Python
- Day 4 (02.02.2023)
 - Biomedical Revolution 4.0
 - Effects of AI & ML in Biomedical
 - Hands on training on biomedical sensors and IOT platforms
- Day 5 (03.02.2023)
 - Stress Management: Why, What & How?
 - AI/ML medical devices and Regulatory Aspects



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ORGANIZING COMMITTEE

NEHRU GROUP OF INSTITUTIONS (NGI)

Nehru College of Educational and Charitable Trust was established way back in 1968 by the Founder Chairman late Shri. P. K. Das who was an eminent Chartered Engineer, a renowned Academician, a great Industrialist and a well-known Philanthropist with an objective of imparting value added practical education of international standard in aviation and other fields of technology. The trust, started initially with a college of aeronautics diversified later on to establish a cluster of educational institutions both in Tamil Nadu and Kerala. Nehru Group of Institutions (NGI) was founded on this philosophy to serve students, especially from socially backward backgrounds looking out for continuing education pathways with an academic and vocational direction.

NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE (NCERC)

Nehru College of Engineering and Research Centre (NCERC), situated on the Bank of the river Nila, is a premier Engineering college that has pioneered engineering education, research and training in the private sector. Established in 2002 by the founder chairman Shri P.K. Das, NCERC is committed to impart world class quality education in engineering and research. Dedicated to the service in the realm of technical education in Kerala, it is an ISO 9001:2015 certified institution, approved by All India Council for Technical Education (AICTE), affiliated to A.P.J Abdul Kalam Technological University (KTU) and is accredited by National Assessment and Accreditation Council (NAAC) with 'A' Grade. Over these years NCERC has grown to be one of the Best Self Financing College in Thrissur, Kerala.

DEPARTMENT OF MECHATRONICS ENGINEERING

NCERC is the first institution offered the Mechatronics Engineering since 2013 (Approved by AICTE New Delhi and Re-Accredited by NAAC and Affiliated to the University of A.P.J Abdul Kalam Technological University). Mechatronics engineering programme is accredited by NBA and department provides a platform to create and apply knowledge by thinking and doing in this rapidly changing world. We aim to provide our students with a perfect blend of intellectual and practical experiences that helps them to be a King of industrial automation.



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ENGINEERING**

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ADV. DR. P KRISHNADAS CHAIRMAN & MANAGING TRUSTEE NEHRU GROUP OF INSTITUTIONS, KERALA & TAMIL NADU	DR. P KRISHNAKUMAR CEO & SECRETARY NEHRU GROUP OF INSTITUTIONS, KERALA & TAMIL NADU

PATRON
Dr. AMBIKADEVI AMMA T PRICIPAL NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE

PROGRAMME COORDINATORS	
Dr. BOBBY N D PROFESSOR & HOD DEPARTMENT OF MECHATRONICS NCERC FDP CONVENOR	Ms. NEETHU M ASSISTANT PROFESSOR DEPARTMENT OF MECHATRONICS NCERC FDP COURSE COORDINATOR

PROGRAMME COMMITTEE	
Mr. MIDHUNRAJ P K ASSISTANT PROFESSOR DEPARTMENT OF MECHATRONICS NCERC	Mr. REJUMON ASSISTANT PROFESSOR DEPARTMENT OF MECHATRONICS NCERC



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FDP SANCTION LETTER FROM UNIVERSITY



APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

CET campus, Thiruvananthapuram - 695 016

Ph: 0471 2598122; Fax: 2598522 www.ktu.edu.in Email: university@ktu.edu.in

File Ref.No.KTU/ASST12(ACADEMIC)/3286/2022

APJ Abdul Kalam Technological University
Thiruvananthapuram

Abstract

Faculty Development Programme (FDP) for the academic Year 2022-23 - Selected - Reg

ACADEMIC AUDIT

U.O.No. 1545/2022/KTU

Thiruvananthapuram, Dated: 29.06.2022

Read:-Notification No: KTU/ACA1/1449/2022 dated 14/03/2022

ORDER

Proposals were invited for conducting Faculty Development Programmes for the academic year 2022-23 from the Institutions / professional bodies as per reference cited above. A total number of 393 applications were received.

The proposals were scrutinized by experts from respective disciplines and shortlisted 131 applications with a suggestion to approve. Hon'ble Vice-Chancellor has approved the suggestion and accorded sanction to conduct the Faculty Development Programme as per the List attached.

The following instructions are also issued for strict compliance:

1. All Institutions may conduct their FDPs before 30 April 2023 through offline mode.
2. The Colleges shall engage the technical sessions by the expert faculty listed in the proposal.
3. The course coordinators may submit the report of the program as mentioned in the guidelines with original bills of transactions made during the program (including honorarium, TA, refreshments, reading materials, etc.) attested by the Head of the Institution and statement of accounts audited by a Chartered accountant for reimbursement.



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Nehru College of Engineering and
Research Centre (Autonomous)
Nila Gardens, Pampady
Thiruvilwamala, Thrissur - 680588



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4. Further guidelines and budgetary provisions for the conduct of FDPs are attached for compliance by the Institutions.

There will be scrutiny regarding the conduct of FDPs by the APJKTU authorities.

The orders are issued accordingly.



Encl:

1. List of FDP sanctioned for the academic year 2022-23
2. Budgetary provisions and instructions for conducting FDPs through offline mode

Sd/-

Dr. Sadiq A. *
Dean (Academic)

*This is a computer system (Digital File) generated letter. Hence there is no need for a physical signature.



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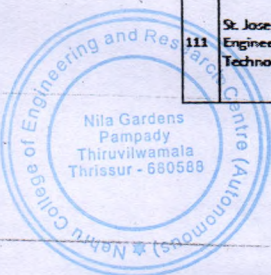
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List of Approved Faculty Development Programmes sanctioned for the year 2022-23. The highlighted session shows the FDP conducted by Dept. of Mechatronics , NCERC (Sl. No. 109)

99	Vimal Jyothi engineering College,Chempuri, Kannur	FDP on Contemporary Break throughs in the Technologies of industry 4.0 (online)	1. Dr.Sreekanth MP(Asst. prof) 2. Dr. Sivaprasad PV Dept. of Mechanical Engineering Vimal Jyothi engineering College,Chempuri, Kannur	9092149215 sreekanth@vjec.ac.in 9447163865 sivaprasadpv@vjec.ac.in
100	Sree Chithra Thirunna College of Engineering, Pappanamcode, Thiruvananthapuram-695018	FDP on Industry 4.0: the future of productivity and growth in manufacturing supply chain	1. Dr.Kavital EG(Asst.Prof) 2. Dr.Anoop MS(Asst.Prof) Dept. of Mechanical Engineering Sree Chithra Thirunna College of Engineering, Pappanamcode, Thiruvananthapuram-695018	8714247259 7012097130
101	Universal Engineering College, Vallivattom Po, Irinjalkkuda-680123	Short term Training Program on Computational fluid dynamics using OpenFOAM	1. Mr. Prem Sankar R(Assoc. prof) Dept. of Mechanical Engineering Universal Engineering College, Vallivattom Po, Irinjalkkuda-680123	9895240452 premsankar@uec.ac.in
102	St.Joseph's College of Engineering and Technology,Palai	Advanced Optimisation Techniques	1. Dr. Nidhish Mathew Nidhiny (prof)ME 2.Mr. Abyson Scaria(asst.Prof)	9447227844 nidhish.nidhiny@sjcetpalai.ac.in 9495081076 abysonscaria@sjcetpalai.ac.in
103	Mar Baselios Christian college of Engineering and Technology	FDP on Strategies for teaching Learning in the Context of NEP-2020	1. Prof. Elias Janson K (hod, ECE)	9946441645 7907956898 eliasjansonk@mbcpeermade.com ec_hod@mbcpeermade.com
104	Sree Chithra Thirunna College of Engineering Pappanamcode PO, TVM	Behavioral Dynamics and Ethics in Engineering and Technology	1. Dr.S H Anilkumar (Prof)ME 2. Mr. Baji K(asst. Prof)	0471 2490572, 9447340870 shakumar69@gmail.com 9496371078 bajimohit@gmail.com
105	NSS College of Engineering, Palakkad	Research Innovations self Learning & Entrepreneurship	1. Dr.Bharati Raj J(Asst. Prof) 2. Dr.Keerthy M Simon(Asst. Prof)	9895896756 bharatiraj83@gmail.com 9740122336 keerthymosimon@gmail.com
106	Jyothi Engineering College, Cheruthuruthy	FDP on Research Publication and Ethics intended for Research Scholars in Collaboration with IEEE	1.Dr. Jarin T (Assoc.Prof& Head)EEE 2. Mr. Jithin, EEE	9626623332 jarint@jyec.ac.in 8547156458 jithinkjose@jyec.ac.in
107	Vidya Academy Of Science and Technology, Technical Campus, Kollamanoor	Research Methodology	Dr. Pravin Rose T (Hod)EEE	9745057329 pravin.rose@vidyatech.ac.in
108	Sree Buddha College of Engineering Pattoor	3 Day FDP on research Methodology, Scientific writing and Publication Ethics	1. Jaya Mary jacob (Asst. Prof) 2. Ms. Shammamol GK (asst.Prof)- Dept of Biotechnology and Biochemical	9562562754 jacob.jaya@gmail.com 9544016387 gkshammamol@gmail.com
109	Nehru College of Engineering and Research Centre, Pampady	Recent Trends of AI in Biomedical Engineering	1. Neethu M(Asst. Prof) Dept of Mechatronics	9497352601 neethudas1812@gmail.com
110	MES College of Engineering, Kuttippuram, Malappuram	FDP on Modern trends in manufacturing process and control techniques in Renewable energy system	1. Rahumuthunza I (prof&Head) Dept of Mechanical Engineering	9496346820 padmakumark@mesce.ac.in
111	St. Joseph's College of Engineering and Technology, Palai	Nano Materials : Developments Applications and future outlook	1. Dr. Rajesh Baby(Assoc. Prof&Dean) ME 2.Mr Anooplal B (Asst.Prof) ME	9447921482 deanresearch@sjcetpalai.ac.in 9846950247 anooplal@sjcetpalai.ac.in



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APJ AKTU SPONSORED FDP ON RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING

FDP BROCHURE

REGISTRATION FORM	Organizing committee	NEHRU COLLEGE OF ENGINEERING & RESEARCH CENTRE
APJ AKTU SPONSORED FDP ON RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING 30th JANUARY to 3rd FEBRUARY 2023 Organized by Department of Mechatronics Engineering	Chief Patron Adm. Dr. P. Krishnakumar Chairman of Managing Trustee Nehru Group of Institutions, Kerala & Tamil Nadu Dr. P. Krishnakumar CEO & Secretary Nehru Group of Institutions, Kerala & Tamil Nadu Patron Dr. Ambikadevi Amma. T Principal, Nehru College of Engineering & Research Centre, Pampady, Thrissur Co-patron Dr. Bobby M D Professor and Head, Dept of Mechatronics Nehru College of Engineering & Research Centre, Pampady, Thrissur Co-Coordinator Prof. Neethu M Assistant Professor, Department of Mechatronics Nehru College of Engineering & Research Centre, Pampady, Thrissur	NEHRU COLLEGE OF ENGINEERING & RESEARCH CENTRE NAAC ACCREDITED ISO 9001:2015 CERTIFIED INSTITUTION Department of Mechatronics Engineering (Accredited by NBA) Five Days Faculty Development Program (FDP) on RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING JAN 30, 2023 TO FEB 03, 2023 Sponsored by APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY KERALA Organized by Department of Mechatronics Engineering
PLEASE PRINT IN BLOCK LETTERS. UPLOAD A SCANNED COPY IN PDF FORMAT OF THE DULY FILLED FORM IN THE REGISTRATION LINK (DOUBLE FORM) ON OR BEFORE 18.01.2023 AND THE ORIGINAL FORM TO BE SUBMITTED BY THE SELECTED CANDIDATES AT THE TIME OF REPORTING ON 30.01.2023 NAME IN BLOCK LETTERS: DESIGNATION: SUPERVISORY: QUALIFICATIONS: KTU FACULTY IN: TEACHING EXPERIENCE (IN YEARS): INDUSTRIAL EXPERIENCE (IN YEARS): RESEARCH / AREA OF INTEREST: COLLEGE NAME & ADDRESS: PIN CODE: MOBILE NO: EMAIL ID: DECLARATION OF APPLICANT I HEREBY DECLARE THAT I HAVE READ ALL THE INSTRUCTIONS MENTIONED IN THE FDP BROCHURE AND AGREE TO THEM ALSO. THE DETAILS FURNISHED ABOVE ARE TRUE TO THE BEST OF MY KNOWLEDGE. IF SELECTED, I SHALL ATTEND THE COURSE FOR THE ENTIRE DURATION. PLACE: DATE: _____ SIGNATURE OF THE APPLICANT ENDORSEMENT BY AUTHORITY I RECOMMEND THAT DR./MR./MRS./MSS. _____ (DESIGNATION) (INSTITUTE) INTERESTED IN ATTENDING THE APJ AKTU SPONSORED FDP FROM 30.01.23 TO 03.02.23 AT NCERC, PAMPADY AND HE/SHE WILL BE RELIEVED DURING THIS TIME TO ATTEND THE SAME. IF SELECTED, THIS IS ALSO TO CERTIFY THAT DETAILS MENTIONED IN THE REGISTRATION FORM BY HIM/HER ARE CHECKED AND FOUND TO BE CORRECT. PLACE: DATE: _____ SIGNATURE OF THE HEAD OF THE INSTITUTION (INSTITUTE SEAL) Last date for registration : 18.01.2023 Notification of selection : 28.01.2023 FDP KEYPOINTS • Introduction to Machine Learning approaches and its applications • Deep Learning: Introduction and overview • An Introduction to Reinforcement Learning and Deep Reinforcement Learning • Deep Learning for Biomedical Image Processing • Understanding and Preprocessing Biomedical Images using Python • Medical Image segmentation using deep learning • Introduction to Python for Deep Learning • Applications of DL techniques in Image processing • Deep Learning for Biomedical Data Analysis - Hands on Using Python • Biomedical Revolution 4.0 • Effects of AI & ML in Biomedical • Hands on training on biomedical sensors and IOT platforms • Stress Management: Why, What & How? NEHRU GROUP OF INSTITUTIONS		

FDP 3 FOLD BROCHURE – OUTER PART CONTENT



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APJ AKTU SPONSORED FDP ON RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING

FDP BROCHURE

ABOUT NGI

Nehru College of Educational and Charitable Trust was established way back in 1968 by the Founder Chairman late Shri. P. K. Das who was an eminent Chartered Engineer, a renowned Academician, a great Industrialist and a well known Philanthropist with an objective of imparting value added practical education of international standard in aviation and other fields of technology. The trust started initially with a college of aeronautics diversified later on to establish a cluster of educational institutions both in Tamil Nadu and Kerala. Nehru Group of Institutions (NGI) was founded on this philosophy to serve students, especially from economically backward backgrounds looking out for continuing education pathways with an academic and vocational direction.

ABOUT INSTITUTION

Nehru College of Engineering and Research Centre (NCERC), situated on the banks of the river Nila, is a premier Engineering college that has pioneered engineering education research and training in the private sector established in 2002 by the Founder Chairman Shri P.K. Das. NCERC is committed to impart world class quality education realm of technical education in Kerala. It is an ISO 9001:2015 certified institution, approved by All India Council for Technical Education (AICTE) affiliated to APJ Abdul Kalam Technological University (KTU) and is Re-accredited by National Assessment and Accreditation Council (NAAC).

ABOUT DEPARTMENT

NCERC is the first institution offered the Mechatronics Engineering since 2013 (Approved by AICTE New Delhi and Re-Accredited by NAAC and Affiliated to the University of APJ Abdul Kalam Technological University). Mechatronics engineering programme is accredited by NBA and department provides a platform to create and apply knowledge by thinking and doing in this rapidly changing world. We aim to provide our students with a perfect blend of intellectual and practical experiences that helps them to be a King of Industrial automation.

DEPARTMENT VISION

To develop professionally ethical and socially responsible Mechatronics engineers to serve the humanity through quality professional education.

DEPARTMENT MISSION

1. The department is committed to impart the right blend of knowledge and quality education to create professionally ethical and socially responsible graduates.
2. The department is committed to impart the awareness to meet the current challenges in technology.
3. Establish state-of-the-art laboratories to promote practical knowledge of mechatronics to meet the needs of the society.

ABOUT THE FDP

Biomedical and biosimilar technologies have a direct impact on humankind, hence there is a vast amount of research and project work that may be done in these fields. Due to the multidisciplinary and varied uses, it is important to understand the state of this field's research as well as its upcoming potential and difficulties.

COURSE OBJECTIVES

- To give overview of recent trends in several aspects of Biomedical systems and technologies.
- Identification of challenges in Biomedical systems and technologies.
- To acquire insights about technological details of different research areas as under Bioengineering and Biomedical systems.
- To motivate research scholars/researchers to pursue research in the field of biomedical engineering.

Click here / scan to download form



RESOURCE PERSONS

Dr. Deepak Mehra

Department of Atomic Indian Institute of Space Science and Technology Thiruvananthapuram, Kerala

Dr. Harikrishnan P M

Senior Computer Vision Engineer, Artificial Data Labs Private Limited (A Brainlab Company) Bangalore

Dr. Yuvraj Velusamy

Associate Professor in Biomedical Engineering, Sakshya College of Engineering and Technology

Dr. R. Ramesh Kumar

Professor and Head, Department of Computer Science and Engineering, Sakshya College of Engineering and Technology

Prof. Sujith V V V

Assistant Professor, Centre for Computational Engineering and Network, Anna's Public Policy Research University

Mr. Rajeevan A B

CTO, Astro Technologies Pvt Ltd

Mr. Ashish Augustine Dabson

Research and Development Head, Astro Technologies Pvt Ltd

Dr. Maheswaran M

Professor and Head, Department of Mechatronics NIET

Mr. Sreejith T V

Passive Teller

Registration Link & Instruction

Mode of conduct: OFFLINE

NO REGISTRATION FEE

Participants need to register through online link given below and upload duly filled registration form given at the back side of this page.

Registration Link: <https://forms.gle/ta44kcluyfRQVGLA>

The no. of participants limited to 30 and the selection will be based on first come first serve basis.

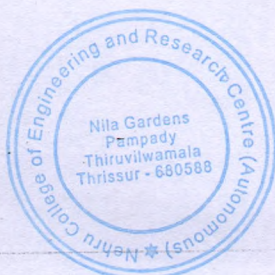
It is compulsory for all participants to attend all the offline sessions and to fill the feedback forms in order to receive the participation certificate.

CONTACT US
Nehru College of Engineering and Research Centre
Pampady
Thiruvilwamala
Thiruvananthapuram - 680588
<http://www.ncerc.ac.in>

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Form



FDP 3 FOLD BROCHURE – INNER PART CONTENT



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APJ AKTU SPONSORED FDP ON RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING

FDP SCHEDULE



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DEPARTMENT OF MECHATRONICS
APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY SPONSORED FACULTY DEVELOPMENT PROGRAMME
ON
RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING
PROGRAM SCHEDULE
30th Jan - 3rd February 2023
Venue: Aryabhata Seminar Hall



DATE & DAY	09:00-11:00 am	11:15-1:15pm	2:00- 4:00 pm
30 Jan 2023	INAUGURATION Introduction to Machine Learning: approaches and its applications Dr. DEEPAK MISHRA PROFESSOR DEPARTMENT OF AVIONICS INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY	Deep Learning: Introduction and overview Dr. SATHEESH KUMAR PROFESSOR AND HoD DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING SAHRDAYA COLLEGE COLLEGE OF ENGINEERING AND TECHNOLOGY	An introduction to Reinforcement Learning and deep reinforcement learning Dr. YUVARAJ VELUSAMY ASSOCIATE PROFESSOR DEPARTMENT OF BIOMEDICAL ENGINEERING SAHRDAYA COLLEGE COLLEGE OF ENGINEERING AND TECHNOLOGY
31 Jan 2023	Deep Learning for Biomedical Image Processing Mr. SAJITH VARIYAR VV ASSISTANT PROFESSOR CENTRE FOR COMPUTATIONAL ENGINEERING AND NETWORK AMRITA VISHWA VIDYAPEETHAM	Understanding and reprocessing biomedical images using python Mr. SAJITH VARIYAR VV ASSISTANT PROFESSOR CENTRE FOR COMPUTATIONAL ENGINEERING AND NETWORK AMRITA VISHWA VIDYAPEETHAM	Medical Image segmentation using deep learning Mr. SAJITH VARIYAR VV ASSISTANT PROFESSOR CENTRE FOR COMPUTATIONAL ENGINEERING AND NETWORK AMRITA VISHWA VIDYAPEETHAM
1 Feb 2023	Introduction to Python for Deep Learning Dr. HARIKRISHNAN SENIOR COMPUTER VISION ENGINEER ARTIVATIC DATA LABS PRIVATE LIMITED, BANGALORE	Applications of DL techniques in Image processing Dr. HARIKRISHNAN SENIOR COMPUTER VISION ENGINEER ARTIVATIC DATA LABS PRIVATE LIMITED, BANGALORE	Deep Learning for Biomedical Data Analysis - Hands on Using Python Dr. HARIKRISHNAN SENIOR COMPUTER VISION ENGINEER ARTIVATIC DATA LABS PRIVATE LIMITED, BANGALORE
2 Feb 2023	Biomedical Revolution 4.0 Mr. RAJEEVAN AB CTO ACUTRO TECHNOLOGIES PVT Ltd	Effects of AI & ML in Biomedical Mr. ASHISH AUGUSTINE DAISON RESEARCH AND DEVELOPMENT HEAD ACUTRO TECHNOLOGIES PVT Ltd	Hands on training on biomedical sensors and IOT platforms Mr. RAJEEVAN AB CTO ACUTRO TECHNOLOGIES PVT Ltd
3 Feb 2023	Stress Management: Why, What & How? Mr. SREEJITH TV POSITIVE TALKER	Stress Management: Why, What & How? Mr. SREEJITH TV POSITIVE TALKER	AI/ML medical devices and Regulatory Aspects Dr. MAHESHWARAN M Prof & Head, MTR DEPT NIET • Quiz • Feedback and Valedictory



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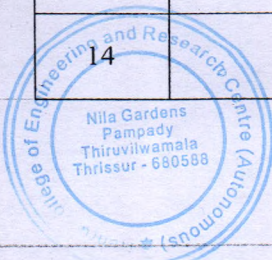
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**APJ AKTU SPONSORED FDP ON RECENT TRENDS OF AI IN BIOMEDICAL
ENGINEERING**

PARTICIPANTS LIST

SL. NO.	NAME OF THE PARTICIPANT	COLLEGE NAME
1	AJEENA A	AL AMEEN ENGINEERING COLLEGE
2	ASMABI V	AL AMEEN ENGINEERING COLLEGE
3	SURESH P	AL AMEEN ENGINEERING COLLEGE
4	THANZEELA MOL A	AL AMEEN ENGINEERING COLLEGE
5	JISHNOOP JAYAPRAKASH	AHALIA SCHOOL OF ENGINEERING AND TECHNOLOGY
6	SAJNA PURAKKAT	AL AMEEN ENGINEERING COLLEGE
7	JASNA M	AL AMEEN ENGINEERING COLLEGE
8	SHILJA A S	MALABAR COLLEGE OF ENGINEERING AND TECHNOLOGY
9	ANJOE C JOHN	MALABAR COLLEGE OF ENGINEERING AND TECHNOLOGY
10	ANOOJA B	MALABAR COLLEGE OF ENGINEERING AND TECHNOLOGY
11	KAMARUDHEEN M M	MALABAR COLLEGE OF ENGINEERING AND TECHNOLOGY
12	RASHMI V R	MALABAR COLLEGE OF ENGINEERING AND TECHNOLOGY
13	JAISON C V	MALABAR COLLEGE OF ENGINEERING AND TECHNOLOGY
14	DEEPU T	RAJADHANI INSTITUTE OF SCIENCE AND TECHNOLOGY



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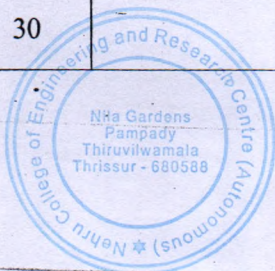


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15	ARSHYA U V	AL AMEEN ENGINEERING COLLEGE
16	NYNI K. A.	JYOTHI ENGINEERING COLLEGE CHERUTHURUTHY
17	SANISH V S	JAWAHARLAL COLLEGE OF ENGINEERING AND TECHNOLOGY
18	BINDHU P	AL AMEEN ENGINEERING COLLEGE
19	NAVYA M V	NIRMALA COLLEGE OF ENGINEERING
20	RESHMA K R	NIRMALA COLLEGE OF ENGINEERING
21	P T RAJEENA MOL	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
22	SARANYA NAIR	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
23	DAVID E	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
24	JITHIN JOSE KALLADA	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
25	SAJITHA A S	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
26	SRUTHY M.R	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
27	BABY V	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
28	ISHWARYA SURENDRAN	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
29	KIRAN M	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE
30	LISA C	NEHRU COLLEGE OF ENGINEERING AND RESEARCH CENTRE



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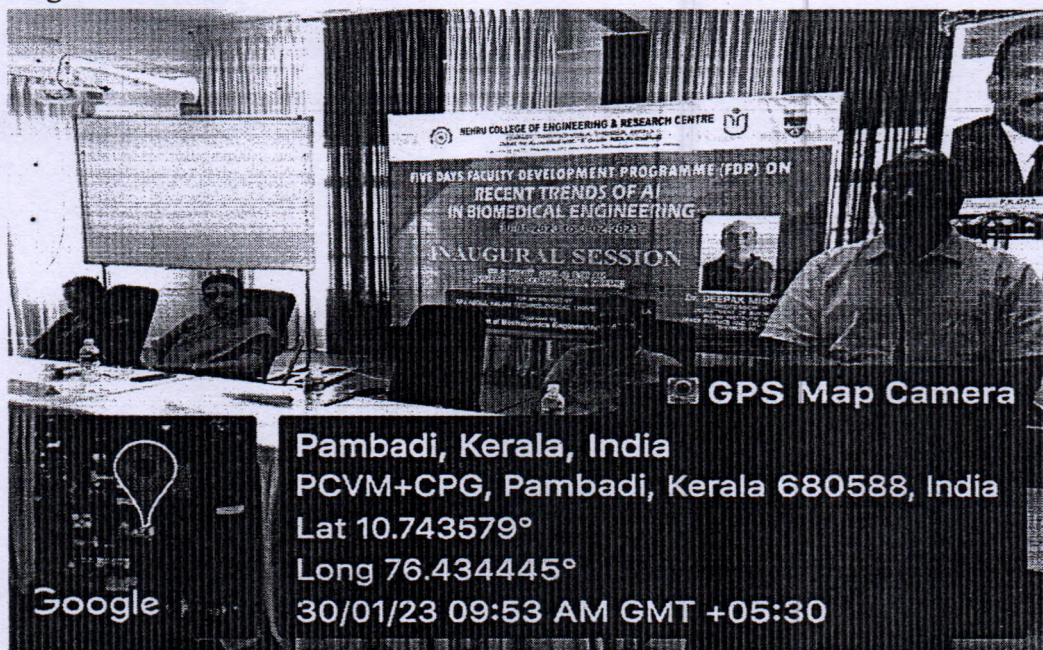


APJ AKTU SPONSORED FDP ON RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING

INAUGURAL SESSION AND GROUP PHOTOGRAPH

The inaugural session and keynote address by chief guest of five days FDP on RECENT TRENDS OF AI IN BIOMEDICAL ENGINEERING was scheduled on 30.1.2023 from 09:00 AM to 11:00 AM.

Respected Principal, NCERC & centre coordinator of the programme **Dr. Ambikadevi Amma T**, convenor of the programme **Dr. Bobby N D** (Professor & Head, Dept. of MTR, NCERC) and course coordinator of the programme **Ms. Neethu M** (Asst. Prof., Dept. of MTR) along with all the Head of the Departments welcomed the Chief Guest **Dr. Deepak Mishra** (Professor, Dept of Avionics, Indian Institute of Space Science and Technology, TVM) and had a brief pre-inaugural meeting at boardroom.

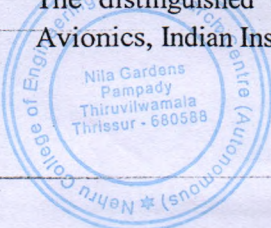


Inaugural Session & Keynote Address by the Chief Guest Dr. Deepak Mishra

The inaugural session started at 9:00 AM at Seminar Hall with the universal prayer song.

Dr. Bobby N D (Professor & Head, Dept. of MTR, NCERC) welcomed all the respected dignitaries and participants. **Dr. Ambikadevi** (Principal, NCERC), centre coordinator of the programme presided the function.

The distinguished Chief Guest for the function, **Dr. Deepak Mishra** (Professor, Dept of Avionics, Indian Institute of Space Science and Technology, TVM) along with other dignitaries



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formally inaugurated the function by lightening the lamp. In his inaugural address, Dr. Deepak Mishra stressed upon the need of faculty development programmes and explained the need of this topic in the current scenario.

Dr. Ambikadevi (Principal, NCERC) talked about the importance of the FDP in the institute vision and motivated all the faculties in his vibrant speech during his felicitation. **Ms. Neethu M** (Asst. Prof., Dept. of MTR) proposed the vote of thanks to all the dignitaries.



Group photograph of participants with Chief Guest Dr. Deepak Mishra

After the formal inaugural session, our chief guest gave a **Keynote Address** on the topic and emphasised on the importance and relevance of the topic in current scenario. He explained, how to use AI and Machine learning techniques in biomedical images. He wished all success to the FDP and said that the course content will help to provide a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent innovations related to AI & Machine Learning.



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**APJ AKTU SPONSORED FDP ON RECENT TRENDS OF AI IN BIOMEDICAL
ENGINEERING**

TECHNICAL SESSIONS

DAY 01 (30.01.2023)

Total No. of Sessions: 03

Session 1:

Introduction to Machine Learning: approaches and its applications

Resource Person:

Dr. Deepak Mishra

Professor, Dept. of Avionics

Indian Institute of Space Science and Technology, Trivandrum

Dr. Deepak Mishra started the session with the basics of Machine Learning.

The topics covered during the sessions were

- Automatic Speech Recognition
- Scene Labeling via Deep Learning
- Tree Classification
- Scope of AI in Agriculture
- Intelligent spraying system
- Regression Loss Functions
- Various learning paradigm

DAY 01 (30.01.2023)

Total No. of Sessions: 03

Session 2: An introduction to Reinforcement Learning and deep reinforcement learning

Resource Person:

Dr. SATHEESH KUMAR

PROFESSOR AND HoD

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

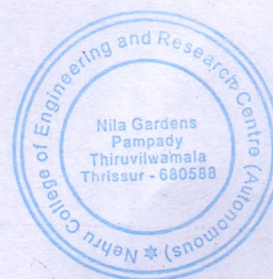
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Dr. Satheesh Kumar started the session with the introduction to Machine Learning and Deep Learning Approaches and done hands-on session.

The topics covered during the sessions were:

- Artificial Intelligence
- Machine Learning
- Supervised Learning
- Unsupervised Learning
- Deep Learning
- Types of Deep Learning Networks

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- Image Segmentation
- Neural Networks for Classification & Segmentation
- Different CNN Architectures

DAY 01 (30.01.2023)

Total No. of Sessions: 03

Session 3: An introduction to Reinforcement Learning and deep reinforcement learning

Resource Person:

Dr. YUVARAJ VELUSAMY
ASSOCIATE PROFESSOR
DEPARTMENT OF BIOMEDICAL ENGINEERING
SAHRDAYA COLLEGE OF ENGINEERING AND TECHNOLOGY

Dr. Yuvaraj Velusamy started the session with the introduction to Biomedical Technologies, Medical & Clinical Reality under the Roof of AI

The topics covered during the sessions were:

- Biomimetic Perspectives - Nature inspiration & Human Technology
- Important Segment of Clinical & Medical Technology
- Expectations of Healthcare from Engineers
- Biomedical Data and it's Sources
- Research Opportunities, Challenges, Limitations and Possibilities
- Ethical issues

DAY 02 (31.01.2023)

Total No. of Sessions: 03

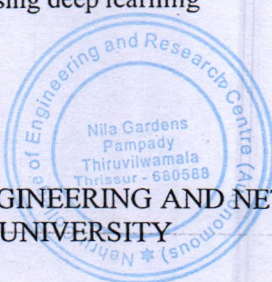
Session 1: Deep Learning for Biomedical Image Processing

Session 2 : Understanding and reprocessing biomedical Images using python

Session 3 : Medical Image segmentation using deep learning

Resource Person:

Mr. SAJITH VARIYAR VV
ASSISTANT PROFESSOR
CENTRE FOR COMPUTATIONAL ENGINEERING AND NETWORK
AMRITA VISHWA VIDYAPEETHAM UNIVERSITY



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Mr. Sajith Variyar V V started the session with the various technologies for Medical Imaging and done hands-on session.

The topics covered during the sessions were:

- X-Ray film radiography
- Computed tomography-CT Imaging
- Magnetic resonance imaging (MRI)
- DICOM Medical Imaging
- PyDicom -(a python package which allows reading and writing of DICOM files)
- NIFTI (file format)
- Medical Image Preprocessing
- Medical Image Annotation

DAY 03 (01.02.2023)

Total No. of Sessions: 03

Session 1: Introduction to Python for Deep Learning.

Session 2 : Applications of DL techniques in Image processing

Session 3 : Deep Learning for Biomedical Data Analysis - Hands on Using Python

Resource Person:

Dr. HARIKRISHNAN

SENIOR COMPUTER VISION ENGINEER

ARTIVATIC DATA LABS PRIVATE LIMITED, BANGALORE

Dr. Harikrishnan started the session with the introduction to computer vision and done hands-on session.

The topics covered during the sessions were:

- Introduction to Computer Vision (CV)
- Applications of Computer Vision
- Basic Deep learning Concepts for classification
- Object detection
- Segmentation



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DAY 04 (02.02.2023)

Total No. of Sessions: 03

Session 1: Biomedical Revolution 4.0

Session 2: Effects of AI & ML in Biomedical

Session 3: Hands on training on biomedical sensors and IOT platforms

Resource Person:

1. Mr. RAJEEVAN AB
CTO, ACUTRO TECHNOLOGIES PVT Ltd, TRIVANDRUM
2. Mr. ASHISH AUGUSTINE DAISON
RESEARCH AND DEVELOPMENT HEAD
ACUTRO TECHNOLOGIES PVT Ltd, TRIVANDRUM

Mr. Rajeevan A B & Mr. Ashish Augustine Daison started the session with the introduction to effects of AI & ML in Biomedical and done hands-on session.

The topics covered during the sessions were:

- The major role of Artificial Intelligence in Apple
- Machine Learning Concept
- Smart Wearable technologies
- Arduino microcontroller basics
- Program for alcohol detection using Arduino microcontroller
- Program for heart beat detection using Arduino microcontroller

DAY 05 (03.02.2023)

Total No. of Sessions: 03

Session 1 & 2: Stress Management: Why, What & How?

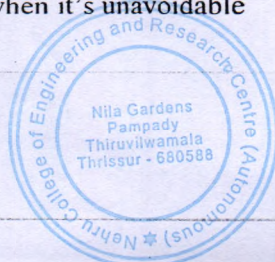
Resource Person:

Mr. SREEJITH TV
POSITIVE TALKER

Mr. Sreejith T V started the session with the introduction to stress management.

The topics covered during the sessions were:

- Give enough time to cool the situation
- Prepare before moving to next phase
- Act sharply when it's unavoidable



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DAY 05 (03.02.2023)

Total No. of Sessions: 03

Session 3: AI/ML medical devices and Regulatory Aspects

Resource Person:

Dr.MAHESWARAN

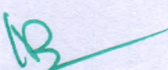
Prof & Head, MTR DEPT

NIET

Dr.Maheswaran started the session with the introduction to International Medical Device Regulators.

The topics covered during the sessions were:

- International Medical Device Regulators Forum (IMDRF)
- In Vitro Diagnostic (IVD) medical device
- ISO/IEC 14764:2006 Software Engineering — Software Life Cycle Processes — Maintenance
- SaMD Categorization
- Criteria for Determining SaMD Category


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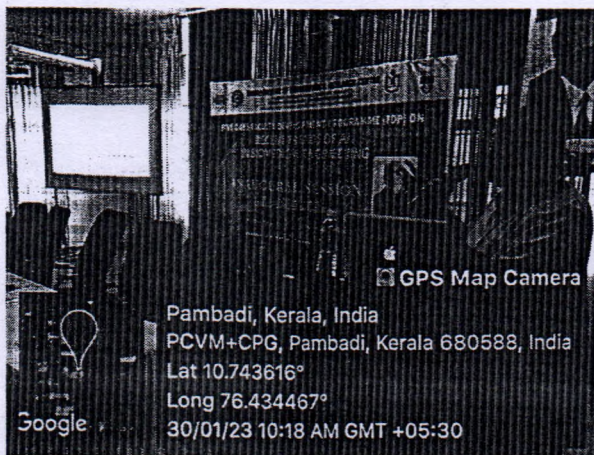


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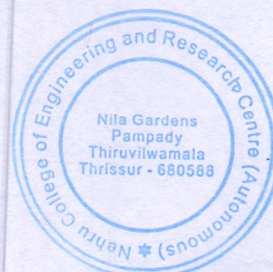


DAY 1 (30/01/2023) DR. DEEPAK MISHRA



DAY 1 (30/01/2023) DR. SATHEESH KUMAR

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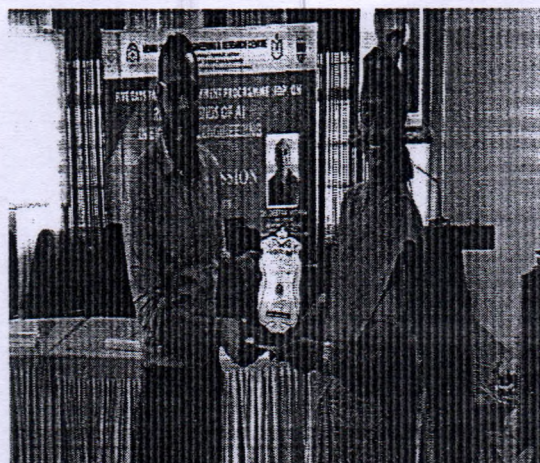
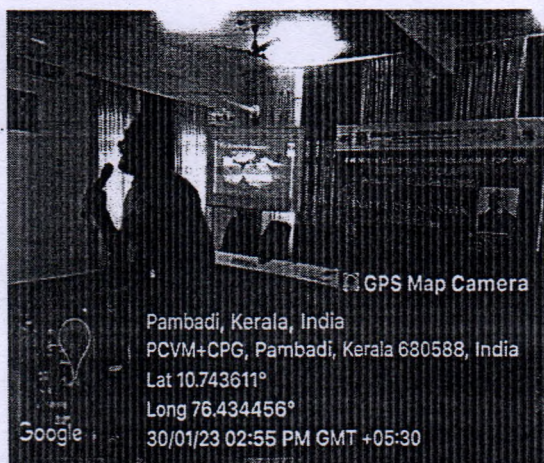


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TECHNICAL SESSIONS- PHOTOGRAPHS



DAY 1 (30/01/2023) DR. YUVARAJ VELUSAMY



DAY 2 (31/01/2023) MR. SAJITH VARIYAR V V



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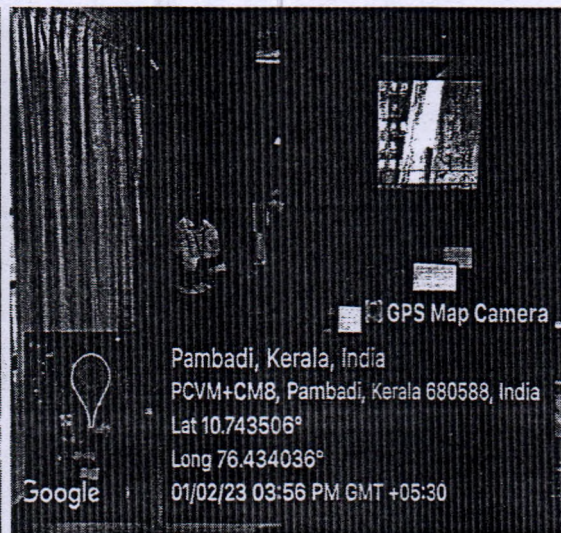
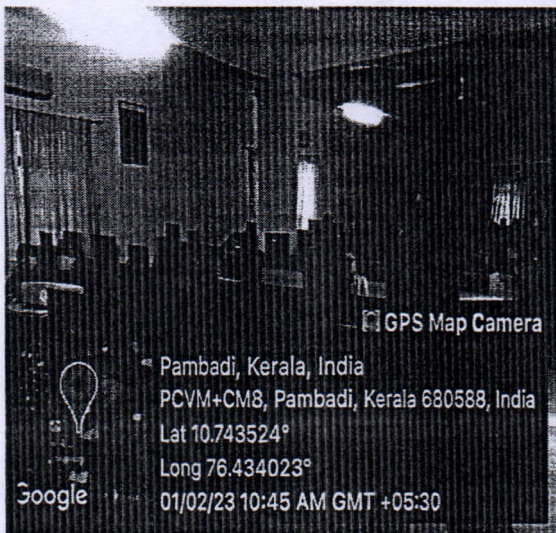


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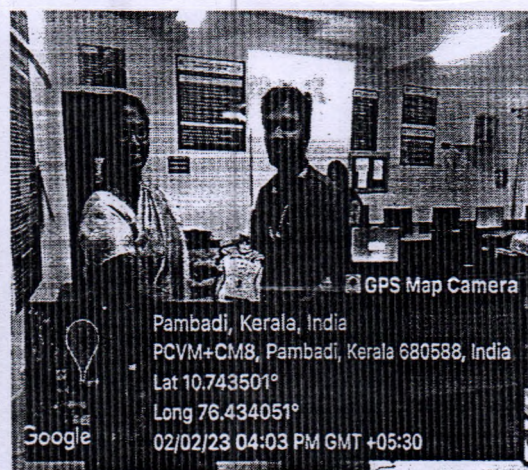
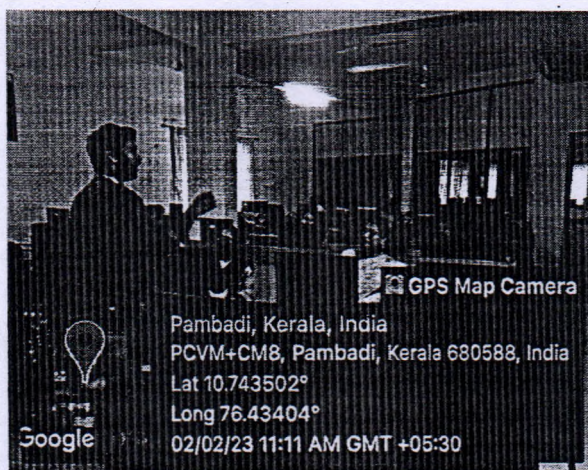
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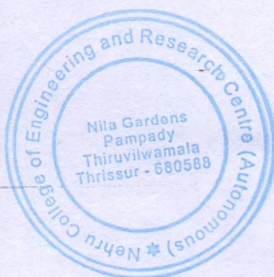
TECHNICAL SESSIONS- PHOTOGRAPHS



DAY 3 (01/02/2023) DR. HARIKRISHNAN N



DAY 4 (02/02/2023) MR. RAJEEVAN A B



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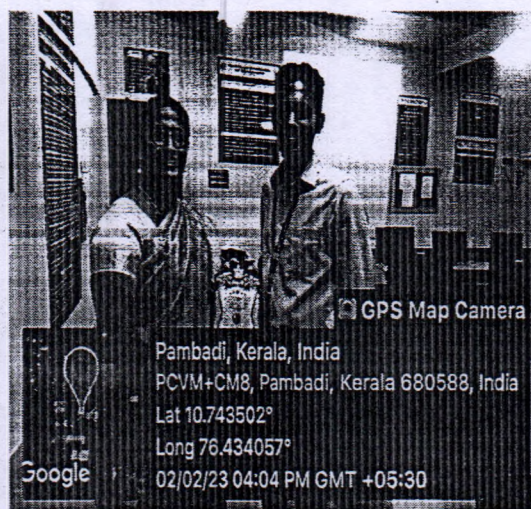
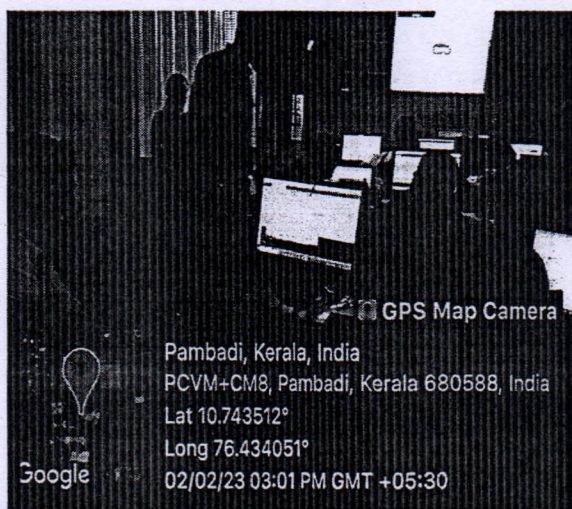


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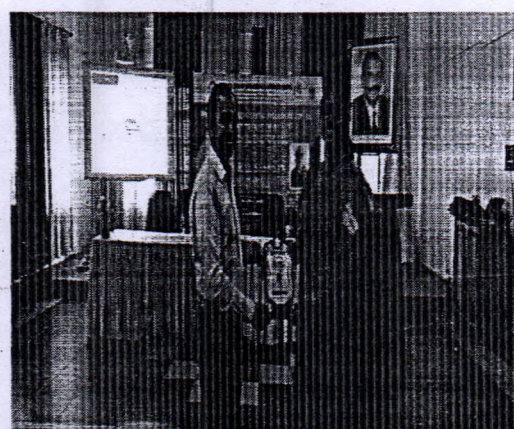
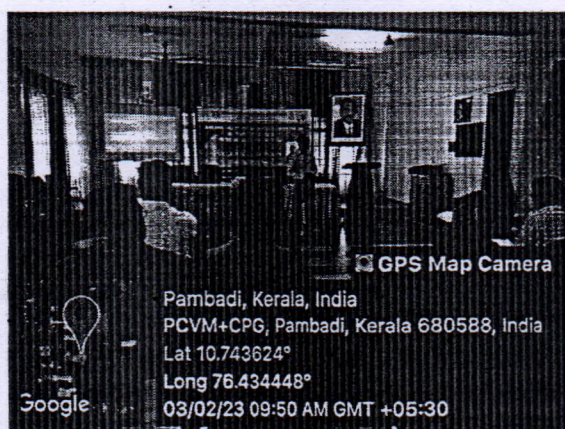
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DAY 4 (02/02/2023) MR. ASHISH AUGUSTINE DAISON



DAY 5 (03/02/2023) MR. SREEJITH T V



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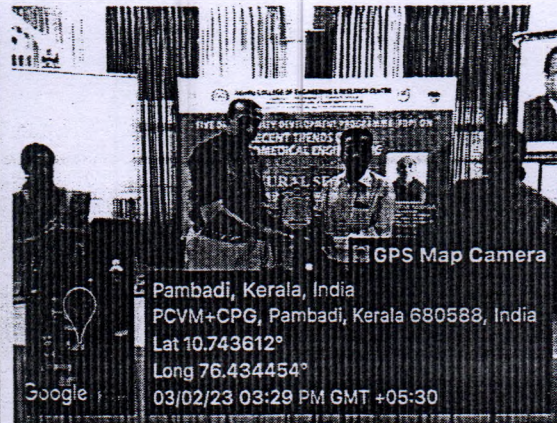
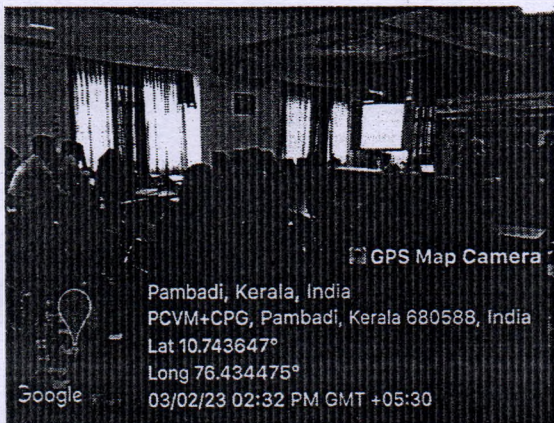


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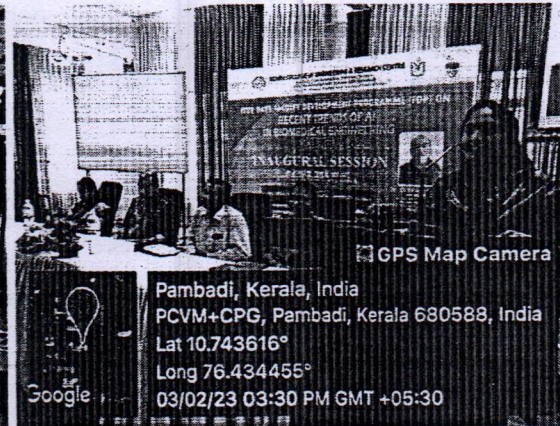
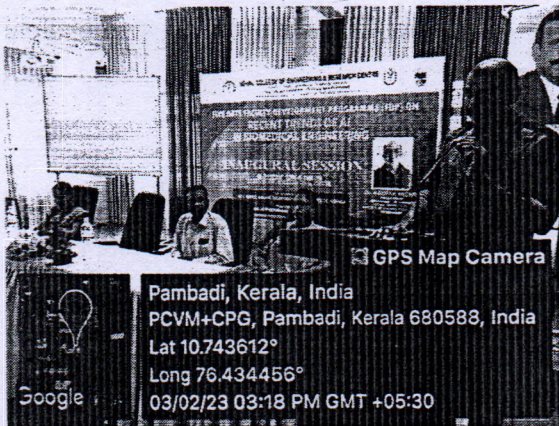
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DAY 5 (03/02/2023) DR. MAHESHWARAN

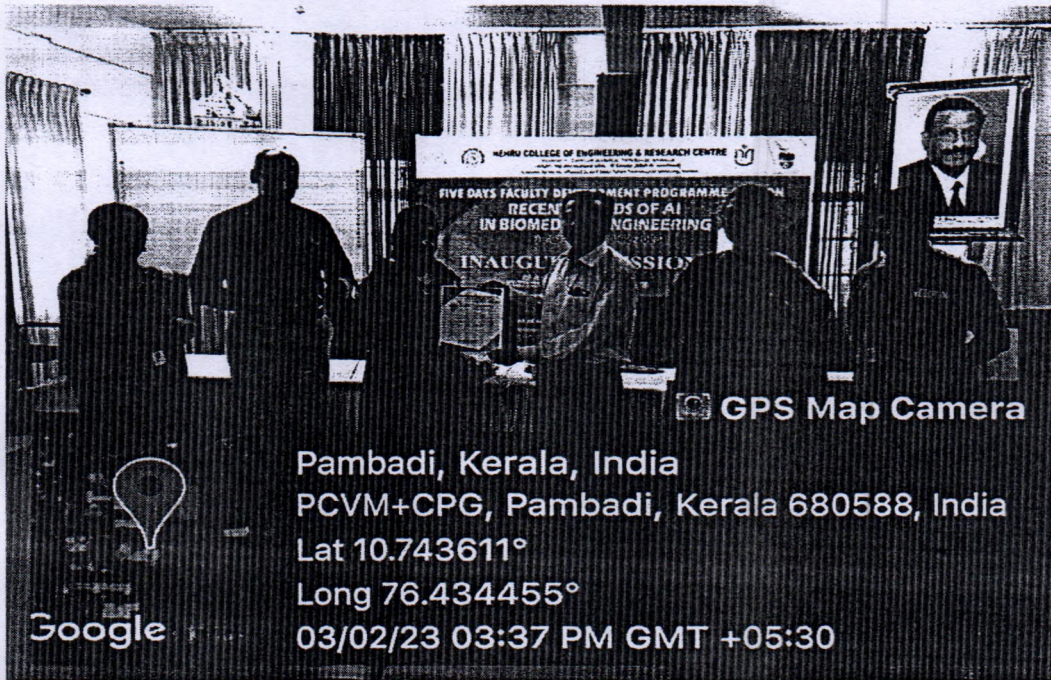


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Lat 10.743611°
Long 76.434455°
03/02/23 03:37 PM GMT +05:30



GPS Map Camera



Pambadi, Kerala, India
PCVM+CPG, Pambadi, Kerala 680588, India
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Long 76.434455°
03/02/23 03:36 PM GMT +05:30

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