

K S R COLLEGE OF ENGINEERING, TIRUCHENGODE

(Autonomous)

Approved by AICTE, New Delhi & Affiliated to Anna University

Chennai

ORGANIZED BY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VIRTUAL FACULTY DEVELOPMENT PROGRAMME

ACADEMIC YEAR: 2021-2022

TITLE

“SENSOR TECHNOLOGY”

on

4.10.2021 to 8.10.2021

Co-ordinators: Dr.P.S.Periasamy,Professor&Head /ECE

Dr.R.Poornima,ASP/ECE

Mr.R.Veeramani,ASP/ECE

Mr.J.Rameshkumar,AP/ECE



PRINCIPAL
K.S.R. COLLEGE OF ENGINEERING
K.S.R. KALVI NAGAR,
TIRUCHENGODE-637 215

Objective

The course content is designed for the faculty, research scholars and PG students to motivate them in learning about various sensors/transducer and its application.

Resource person

Resource persons from IITS/ NITs/ IIITs and other reputed R & D Institutions and Industries.

Eligibility of Participants

Faculty members of the AICTE approved Engineering colleges and Polytechnic colleges, research scholars, PG Scholars, participants from Government, Industry etc and staff of host institutions maximum 200 participants are allowed on first come first serve basis.

How to Apply

For details:

<https://atalacademy.aicte-india.org/signup>

- # No Registration fee is applicable for attending FDP. Interested candidates should register before 01-10-2021 (17:00 hrs).
- # The program would be completely online during 04-08 Oct 2021 on Google Meet platform.
- # Maximum Participants, 200 Upto 30% participants from the host Institution
- # The program will cover theoretical, practical and application aspects.

The participants shall take part in a test at the end of the program. Top 5 scorers in the examination will receive a Book Each.

Course Completion Certificate would be issued to participants with 80% or more attendance and 60% or more marks in the test.

Chief Patrons

Lion. Dr. K. S. Rangasamy

Founder Chairman

Mr. R. Srinivasan

Vice-Chairman

K.S.R. Educational Institutions

Patron

Dr. P. Senthil Kumar

Principal

K.S.R. College of Engineering

Organizing Committee Members

Dr.R.Poornima, ASP-ECE

Mr.R. Veeramani, ASP-ECE

Mr.J.Rameshkumar, AP-ECE

IMPORTANT DATES

Last date to register in AICTE ATAL portal	: 01-10-2021
Date of selection intimation	: 02-10-2021
Date of Faculty Development Programme	: 04-10-2021 to 08-10-2021

After registration in the <https://atalacademy.aicte-india.org> link submit the scanned copy of the registration form to ksrceceofficial@gmail.com by

FOR ANY DETAILS PLEASE CONTACT

Mr. R. Veeramani

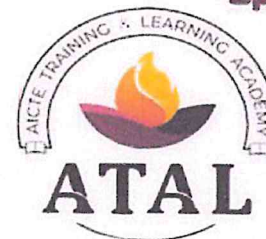
Associate Professor

**K.S.R. College of Engineering
Tiruchengode-637 215**

**Mobile Number: 984021 8865
97912 62595**

AICTE Training and Learning (ATAL)

Sponsored



Virtual Faculty Development Program (FDP)
on

Sensors Technology

04-10-2021 to 08-10-2021

Coordinator

Dr.P.S.Periasamy

Prof. & HOD

Department of

**Electronics and Communication Engineering
K.S.R. College of Engineering,
Tiruchengode**



Organized

by

Department of

**Electronics and Communication Engineering
(Programme Accredited by NBA)**



K.S.R. College of Engineering

(An Autonomous Institution)

Affiliated to Anna University & Approved by AICTE,
Accredited by NAAC with 'A' Grade

**K.S.R. Kalvi Nagar, Tiruchengode,
Tamil Nadu - 637 215, India.**

ABOUT THE COLLEGE

K.S.R. College of Engineering is one of the foremost multi professional research lead institutions established in the year 2001 by Aarthi Educational and Charitable Trust. KSRCE is an autonomous institution, affiliated to Anna University, accredited by NAAC with 'A' Grade and approved by AICTE. The college has come up with all essential and advanced modern infrastructure facilities to excel both in academic and research activities. The college offers 9 UG and 7 PG Programmes in Engineering and Technology in addition to MBA, MCA and Ph.D. Programmes. The college is continuously recognized by several organizations, ranking agencies and magazines like NIRF, Anna University, EDU-Rand Rankings, Outlook, Competition Success Review, "The Week" and other reputed journals.



The College frequently bags several University ranks and gold medals from Anna University both in academics and sports including first place for filing maximum number of patents among all the engineering colleges affiliated to Anna University and secured Second Rank in Anna University Examination results. The College was bestowed with 3 patents, 05 patents examined, 35 patents published and 140 patents filed. Several advanced centers are functioning with support from the MHRD, and other agencies. These include: e-Vantra Lab Setup Initiative, CISCO network academy, CAD/CAM Centre, EMC² centre, IoT learning centre, Wipro PAP centre, Virtual Instrumentation Centre, Educational Technology Centre, Centre for Non-Formal and Continuing Education and Industry Institute Partner ship Cell.

ABOUT THE DEPARTMENT

The department of ECE was established in the year 2001 and has soared excellently in academic and research activities. The department is also offering a PG course in Communication Systems since 2010. The department is recognized as research center, permanently affiliated by Anna University and accredited by NBA three times and the same is valid up to June 2022. The department is equipped with the state of art laboratories, Internet facilities and supported by well-qualified experienced faculty members. Most of the students are contributing all around the world and their contribution can be seen at the national level in many public sectors, research organization and defense sectors like DRDO, ISRO etc. & in most of the 500 MNCs. The department has equally supported the students by providing the latest curriculum and syllabi with hands on training in communication engineering, SoC, VLSI & Embedded Systems & etc.. Students are enriched with this technological knowledge and expertise in identified domains. For the last two decades, this department has occupied and contributed remarkably to be a part of nation building and creating ambience to the new horizon.

About ATAL

AICTE Training and Learning (ATAL) Academy is established with the vision "To empower faculty to achieve goals of Higher Education such as access, equity and quality". AICTE is committed for development of quality technical education in the country by initiating various schemes launched by Govt. of India, Ministry of Human Resource Development. Council understand that there is a need of the day to train the young generation in skill sector and having faculty & technicians to be trained in their respective disciplines. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies.

Faculty Development Programme

Sensor is a device, module, machine, or subsystem whose purpose is to detect events or changes in its environment and send the information to other electronic devices, frequently a computer processor. Advance sensor technologies have created a paradigm shift in efficient operation of almost all sectors of the societies. Starting from health to domestic to industrial sector the intervention and dependence on smart sensors has increased manifold times. Development of smart sensors and its associated instrumentation has experienced a huge leap in last few years. Sensors not only improved performance of the new technologies but have also helped to assess the efficiency of many existing technologies. Structural health monitoring of any manufacturing process is one such example of it. We are in an era where people are surrounded by sensors. The advancement in sensor technologies has opened an era of interdisciplinary science, where all stream hold equal importance in the development of any sensor technology competencies.

Broadly, the course contents (but not limited to) are as follows:

- ☒ Sensor Fabrication Technologies – An Overview
- ☒ Analog & Digital Sensors
- ☒ Instrumentation in Precision Health care
- ☒ Wearable sensors as a part of IoT
- ☒ Application of MEMS Based Sensors
- ☒ Design, Fabrication & Characterization of RFID
- ☒ Sensors for Surveillance Applications
- ☒ Satellite IoT connectivity for LoRa Technology
- ☒ Advancements in Gas Sensor Technology
- ☒ Biosensors and its Applications
- ☒ Real time ECG signal acquisition and Analysis using LABVIEW
- ☒ Sensors in vehicle



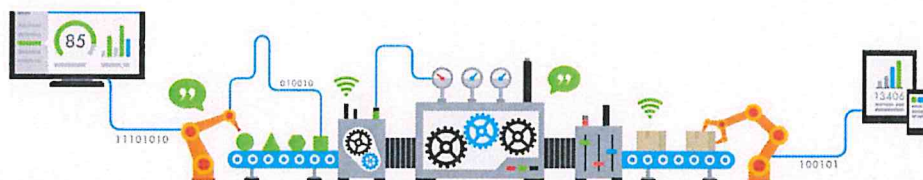
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ATAL FDP REPORT

Virtual Faculty Development Programme

on

"SENSORS TECHNOLOGY"



K.S.R

COLLEGE OF ENGINEERING

DATE: 4th October 2021 to 8th October 2021

Programme Coordinator

Dr.P.S.Periasamy

Prof.-Head, Department of ECE, KSRCE, Tamilnadu




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AICTE TEACHING LEARNING PROCESS (ATAL)
SPONSORED FACULTY DEVELOPMENT
PROGRAMME ON VIRTUAL FACULTY DEVELOPMENT PROGRAMME
ON
“SENSORS TECHNOLOGY”

AICTE Teaching Learning Process (ATAL) Sponsored Faculty Development Programme on Sensors Technology was conducted from 4th to 8th October 2021 in which 106 participants from different parts of the country were participated. The Detailed schedule has given below.



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AICTE Training and Learning (ATAL) Sponsored Virtual Faculty Development Program (FDP)
 on



SENSORS TECHNOLOGY

Organized by

Department of Electronics and Communication Engineering

(Programme Accredited by NBA)

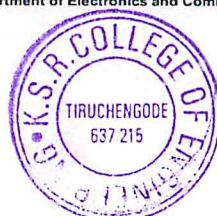


Session wise time schedule

Date	Session Timing		
	(9.30 am - 11.30 am)	(11.45 am - 1.45 pm)	(2.30 pm - 4.30 pm)
04-10-2021	Session 1 Introduction to Sensor and Transducer Technology Dr.P.S.Periasamy Department of ECE, KSRCE, Tamilnadu	Session 2 Design, Fabrication & Characterization of RFID Sensors for Surveillance Applications Dr.Deepak Sood Department of ECE (UIET) Kurukshetra University, Kurukshetra	Session 3 Analog & Digital Sensors Dr. Tapan Jain Department of ECE, IIIT, NAGPUR
05-10-2021	Session 4 Instrumentation in Precision Health care Dr. Shiva Nand Singh Department of ECE, NIT, Jamshedpur	Session 5 Wearable sensors as a part of IoT Dr. Nikhil Marriwala Department of ECE (UIET) Kurukshetra University, Kurukshetra.	Session 6 Design and development of MEMS based sensors for rapid detection of trace analytes Dr. Shantanu Bhattacharya Department of Mechanical Engineering, IIT, Kanpur.
06-10-2021	Session 7 Sensor Fabrication Technologies - An Overview Dr.J.Kathirvelan Department of Sensor Technology, VIT, TN	Session 8 Satellite IoT connectivity for LoRa Technology Dr.M.Arun Department of Embedded Technology VIT, TN	Session 9 Stress Management Dr. S. Prabakar School of Social Sciences and Languages, VIT, TN
07-10-2021	Session 10 Advancements in Gas Sensor Technology Dr. Rahul Prajesh Senior Scientist, CSIR, Pilani Rajasthan	Session 11 Biosensors and its Applications Dr. Nikhil Marriwala Dept. of ECE (UIET) Kurukshetra University, Kurukshetra.	Session 12 Real time ECG signal acquisition and Analysis using LABVIEW Dr.U.S.Ragupathi Department of E&I Kongu Engineering College, Tamilnadu
08-10-2021	Session 13 Sensors in the vehicle Dr.N.Nedunchezian Department of Automobile Engineering IRTT, Erode, Tamilnadu	Session 14 Introduction to the Wireless Sensor Networks Dr.L.Raja Department of ECE Sri Eshwar College of Engineering, Tamilnadu	Session 15 Valediction, Examination & Feedback

Date: 04-10-2021 to 08-10-2021

K.S.R. College of Engineering, Department of Electronics and Communication Engineering



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The Speakers for the 5-day Workshop on “SENSORS TECHNOLOGY”



Dr. P.S. PERIASAMY
Prof-Head, ECE, KSRCE

Educational Qualifications:

Ph.D. (Image Processing) – Anna University
M.E. (ECE) – Govt College of Technology, Coimbatore, Tamilnadu
B.E. (Electrical and Electronics Engineering)- Govt College of Engineering, Salem.

Teaching Experience: 30 Years

Professor - Head, ECE, KSRCE

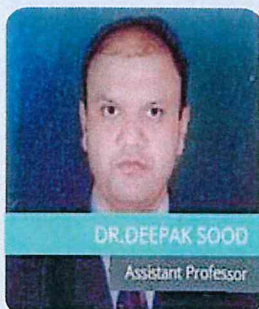
Interested Areas: Digital Image Processing, Sensors Design, Digital Signal Processing.

Patent: 02

Publications:

International Journal: 44, National Journal: 02, Internal Conference: 09,
National Conference: 09

Book Chapters: 02



Dr. DEEPAK SOOD
Asst. Professor, ECE

Educational Qualifications:

PhD From Kurukshetra University
M. Tech. From Kurukshetra University
B. E. in Electronics and Telecommunication Engineering From Kurukshetra University

Teaching Experience: 20 Years

Interested Areas: Sensors

Publications:

International Journal: 40



Dr. TAPAN KUMAR JAIN
Asst. Professor & HOD, ECE

Educational Qualifications:

PhD in Wireless Sensor Network from JUIT, Solan (2016)
M. Tech. in ECE from COEP (2005)
B. E. in Electronics and Telecommunication Engineering form RGPV, Bhopal (2001)

Total Experience: 18 Years

July 2018 to till date - Assistant Professor, IIIT Nagpur
July 2015 - July 2018 - Assistant Professor, IIIT Kota
August 2009 - July 2015 - Assistant Professor, JUIT Solan
2007 - August 2009 - Sr. Software Engineer, CRMnext India
July 2005 - May 2009 - Software Engineer, KLA Tencor India Pvt. Ltd.

Publications:

International Journal: 04



Dr. SHIVA NAND SINGH
Professor, ECE

Educational Qualifications:

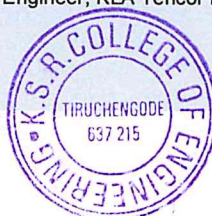
PhD From NIT Jamshedpur
M. Tech. RIT Jamshedpur
B. Tech. BIT Meshra

Teaching Experience: 35 Years

July 2018 to till date - Assistant Professor, IIIT Nagpur
July 2015 - July 2018 - Assistant Professor, IIIT Kota
August 2009 - July 2015 - Assistant Professor, JUIT Solan
2007 - August 2009 - Sr. Software Engineer, CRMnext India
July 2005 - May 2009 - Software Engineer, KLA Tencor India Pvt. Ltd.

Publications:

International Journal: 04



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The Speakers for the 5-day Workshop on “SENSORS TECHNOLOGY”



Dr. NIKHIL MARRIWALA
Asst. Professor, ECE

Dr. Nikhil Marriwala is working as Assistant Professor and Head of the Department Electronics and Communication Engineering Department, University Institute of Engineering and Technology, Kurukshetra University, Kurukshetra. He did his PhD. from NIT, Kurukshetra in the department of Electronics and Communication Engineering. He did his post-graduation in Electronics and Communication Engineering from IASE University, and did his B-Tech in Electronics and Instrumentation from MMEC, Mullana, Kurukshetra University, Kurukshetra. His areas of interests are Software Defined Radios, Cognitive Radios, Soft Computing, Wireless Communications, Wireless Sensor Networks, Fuzzy system design, and Advanced Microprocessors. He has published more than 5 book chapters in different International books, has authored more than 10-books with Pearson, Wiley, etc. and has more than 30 publications to his credit in reputed International Journals and 20 papers in International/National conferences. He also has two patents published to his credit. He has been Chairman of Special Sessions in more than 5 International/National Conferences and has delivered a keynote address at more than 2 International conferences. He is a reviewer for many reputed journals such as the International Journal of Communication Systems, Wiley, IEEE Signal Processing Letters, International Journal of Measurement Technologies and Journal of Organizational and End User Computing (JOEUC), Egyptian Informatics Journal – Elsevier, Instrumentation Engineering (IJMTE), International Journal of Interactive Communication Systems and Technologies (IJICST), Current Journal of Applied Science and Technology, UK. He was awarded by 'Career Guru of the Month' award by Aspiring Minds. National Conference: 09



Dr. SHANTANU BHATTACHARYA
Professor, Dept. of Mechanical Engineering

Shantanu Bhattacharya (Ph.D.) is GVMM chair and Professor of Mechanical Engineering at Indian Institute of Technology Kanpur. He served as Head of Design Interdisciplinary program between 2017~2020 @ IIT Kanpur. Prior to this, he completed his MS in Mechanical Engineering from the Texas Tech University, Lubbock, Texas, and a Ph.D. in Bioengineering from the University of Missouri, Columbia, USA. He also completed postdoctoral training at the Birck Nanotechnology Center at the Purdue University. His main research interests are design and development of micro- and nano-sensors and actuation platforms, nano-energetic materials, micro- and nano-fabrication technologies, water remediation using visible light photocatalysis, and product design and development. He is a Senior member of IEEE and has bagged the prestigious Abdul Kalam Technological Innovation National fellowship from the Indian National Academy of Engineering. He has guided many Ph.D. and master's students and has many international journal publications, patents, books, and conference proceedings.



Dr. J. KATHIRVELAN
Associate Professor Grade 1,
Department of Sensor and Biomedical Technology

Educational Qualifications:

PhD from VIT, Vellore
M.E from Jawaharlal Nehru Technological University
B.E from University of Madras


Teaching Experience: 18 Years

Professor, Vellore Institute of Technology - VIT, Vellore.

Publications:

International Journal: 05
International Conferences: 06
National Conferences: 04




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The Speakers for the 5-day Workshop on "SENSORS TECHNOLOGY"



Dr. M. ARUN
Associate Professor Sr & HOD,
Department of Embedded
Technology

Educational Qualifications:

PhD From Anna University, Chennai
M.E From Kongu Engineering College
B.E Thiagrajar College of Engineering.

Teaching Experience: 18 Years

Associate Professor, Vellore Institute of Technology, Vellore.

Interested Areas : High Performance Heterogeneous Computing.

Publications:

Publications:
International Journal: 41
International Conferences: 20
National Conferences: 42



Dr. S. PRABHAKAR
Associate Professor G1
School of Social Sciences and
Languages

Educational Qualifications:

PhD from Pondicherry University
MSc from University of Madras
M.A from Pondicherry University
B.A from Pondicherry University

Teaching Experience: 24 Years

Associate Professor, Vellore Institute of Technology, Vellore.

Interested Areas : Human Resource Management

Publications:

International Journal: 11
International Conferences: 14, National Conferences: 08, International Conferences:
20, National Conferences: 42



Dr. RAHUL PRAJESH
Senior Scientist in
Semiconductor Device
Fabrication Group

Educational Qualifications:

PhD from AcSIR

Experience: 18 Years

Senior Scientist, CSIR-CEERI, Pilani.

Interested Areas : Semiconductor Device Fabrication

Patent: 02

Publications:

International Journal: 16
International Conferences: 32



Dr. U.S. RAGUPATHY
Professor, Department of
Electronics and Instrumentation

Educational Qualifications:

PhD from Anna university

Experience: 24 Years

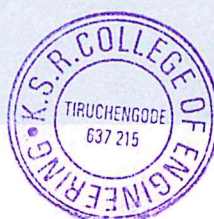
Kongu Engineering College, Tamilnadu.

Interested Areas: Image Processing, Signal Processing, VLSI, Wavelets and Soft Computing Techniques.

Patent: 02

Publications:

International Journal: 20
International Conferences: 33
National Conferences: 01



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The Speakers for the 5-day Workshop on “SENSORS TECHNOLOGY”



Dr. N. NEDUNCHEZHIAN
Associate Professor, Department
of Automobile

Educational Qualifications:

PhD from Anna university

Experience: 24 Years

IRTT, Tamilnadu

Interested Areas : IC Engine & Combustion, Automotive Embedded Systems

Publications:

International Journal: 75

International Conferences: 22



Dr. L. RAJA
Associate Professor, ECE

Educational Qualifications:

PhD from Anna university

M.E From Kongu Engineering College

Experience: 16 Years

Shri Eswar College of Engineering, Tamilnadu


Interested Areas: Wireless Sensor Networks

Publications:

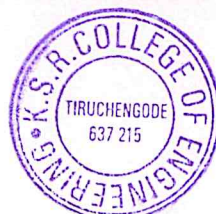
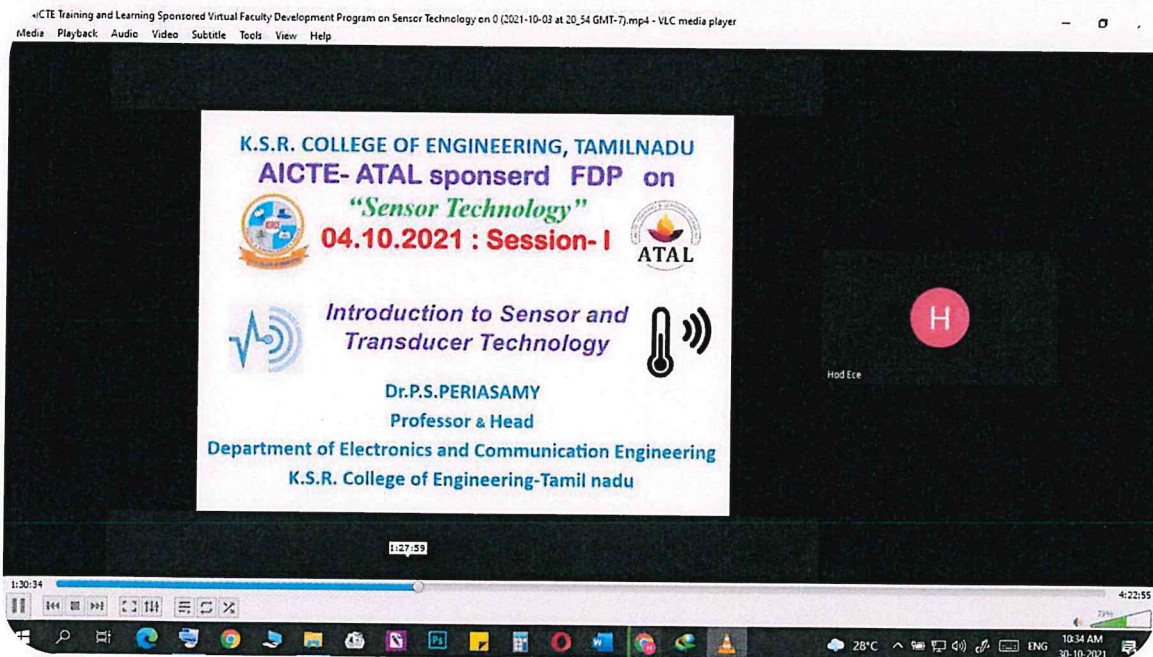
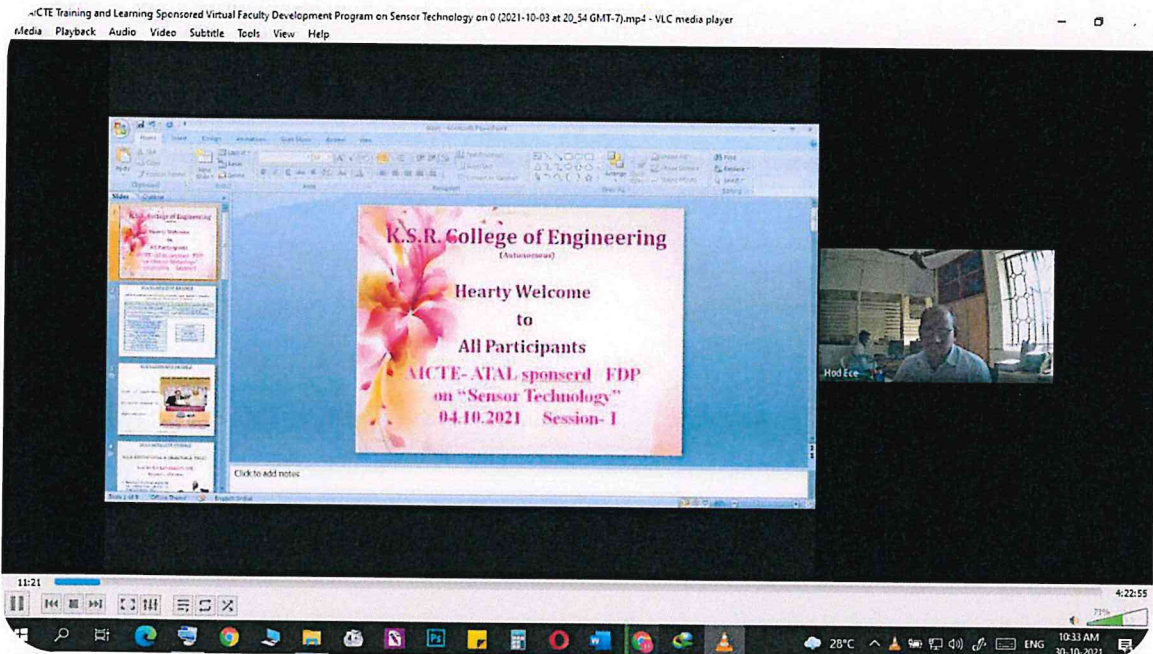
International Journal: 05

International Conferences: 10





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The screenshots of the participants taken on the closing are:-




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KURUKSHETRA UNIVERSITY


Faculty Development Program on SENSORS TECHNOLOGY
Organised by
K.S.R College of Engineering,
Tiruchengode, Namakkal (Dt.), Tamilnadu

Design, Fabrication & Characterization of RFID SENSORS for Surveillance Applications



Dr. Deepak Sood
Assistant Professor
Department of Electronics & Communication Engineering
University Institute of Engineering & Technology
Kurukshetra University, Kurukshetra (Haryana), India
Email: dsood2013@ksr.ac.in, deepaksood1@gmail.com

Source: <http://www.mic-hotel.com/a/paper/RFID>
04 Oct '21



deepak sood

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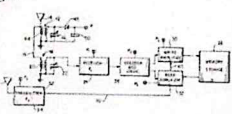
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RFID Evolution

1939:- IFF transponder invented in UK, used by allies in world war II to identify the aircraft as friend and foe.


1946:- Leon Theremin invented a listening device which re-transmitted incident radio waves with audio information.

1971:- Mario Carullo's U.S. patent 3713148 was first true ancestor of modern RFID, a passive radio transponder with memory. It is powered by interrogating signal.



04 Oct '21

EVOLUTION OF RFID



World War II 1945: IFF transponder invented in UK, used by allies in world war II to identify the aircraft as friend and foe.

1946: Leon Theremin invented a listening device which re-transmitted incident radio waves with audio information.

1971: Mario Carullo's U.S. patent 3713148 was first true ancestor of modern RFID, a passive radio transponder with memory. It is powered by interrogating signal.

1973: First RFID Tag


1990: UHF 860-960 MHz Frequency RFID

2004: Wiegand

2016: Cost per tag

2020: RFID Market

2025: Price Drop

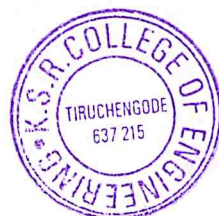


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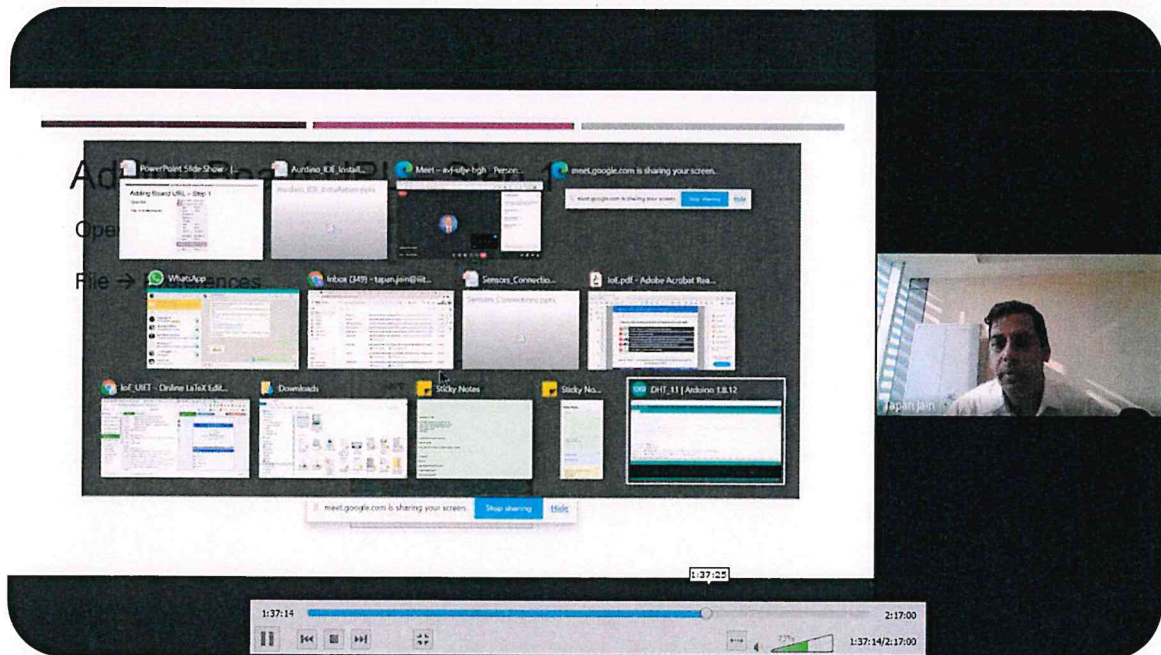
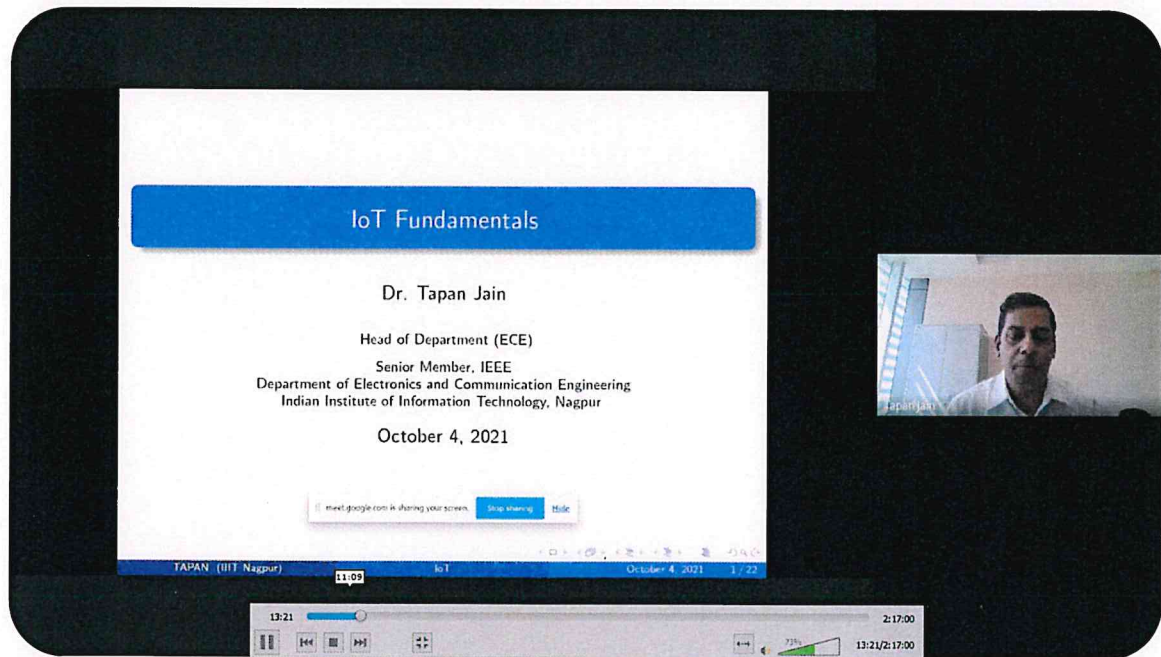
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Health Care Devices
to become a Life Easy

National Institute of Technology,
Jamshedpur -831014
An Institution of National
Importance Under MHRD,
Govt. of India

Instrumentation in Precision Health Care

FDP Programme
on

Sensors Technology

organised by

KSR College of Engineering, Tamil Nadu



Presented
By

Prof(Dr). S.N.Singh
Deptt. of Electronics &
Communication Engineering
Phone: 8789411814(M)

E-mail shivanandsingh.cce@gmail.com



Shiva Nand Singh

05-10-2021

Prof. (Dr.) S. N. Singh, National Institute of Technology
Jamshedpur



Health Care Devices
to become a Life Easy

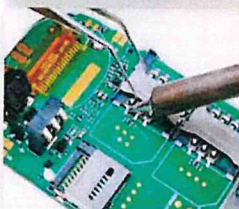
Maintenance of PCB at Modular Level of Medical Instruments



05-10-2021



Prof. (Dr.) S. N. Singh, National Institute of Technology
Jamshedpur



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Shiva Nand Singh



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Wearable Sensors as a part of Internet of Things



Presented By

Dr. Nikhil Marriwala

HOD, Department Of Electronics & Communication Engineering, University
Institute of Engineering & Technology, Kurukshetra University, Kurukshetra
A+ Grade NAAC



New Wearables – New Applications

Detecting Cocaine Usage through Wearable ECG Sensor (UbiComp 2013)

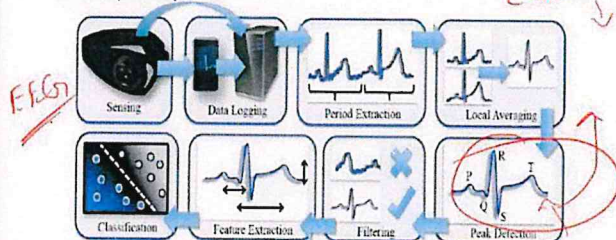



Figure 3. This figure illustrates the primary steps in our sensing, data acquisition and data processing pipeline. Raw ECG measurements are transmitted wirelessly to a smartphone and also downloaded directly to a server to provide redundancy. We first segment ECG periods using RR intervals. To deal with noise in the signals, we compute local averages over 30 second sliding windows. We apply peak detection to the smoothed waveforms and discard those that do not have the correct configuration of peaks and troughs. We apply feature extraction and standardization followed by classification. The above steps apply only to features in the knowledge-based framework. For features in the data-driven framework the local averaging step is directly followed by classification.



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Shantanu Bhattacharya

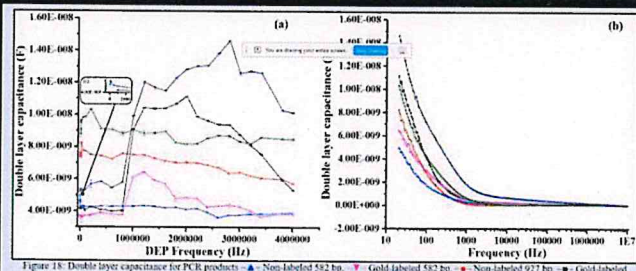



Figure 18: Double layer capacitance for PCR products. (a) Plot of Double layer capacitance (F) vs DEP Frequency (Hz) for 582 bp, 927 bp, and 1940 bp. (b) Plot of Double layer capacitance (F) vs Frequency (Hz) for the same products.

Table 3: Various parameters corresponding to Double layer capacitance for different sized DNA (30 cycles PCR product).

Size of DNA	DEP capture frequency (Hz)		Maximum Double layer capacitance corresponding to capture frequency (F)		Baseline Double layer capacitance without DEP field (F)	
	Non-labeled	Gold-labeled	Non-labeled	Gold-labeled	Non-labeled	Gold-labeled
582 bp	100	1.2×10^5	4.98×10^{-9}	6.43×10^{-9}	4.18×10^{-9}	4.43×10^{-9}
927 bp	10000	2.0×10^5	8.24×10^{-9}	1.12×10^{-8}	4.74×10^{-9}	5.56×10^{-9}
1940 bp	200000	2.8×10^5	1.03×10^{-8}	1.46×10^{-8}	8.17×10^{-9}	1.11×10^{-8}

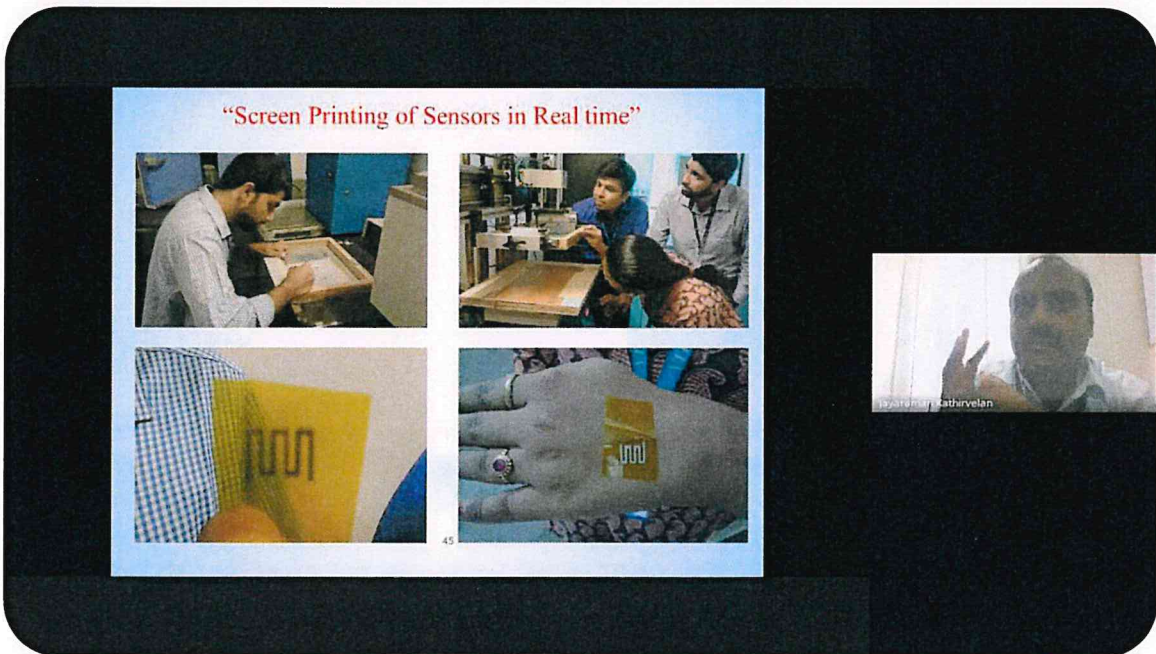
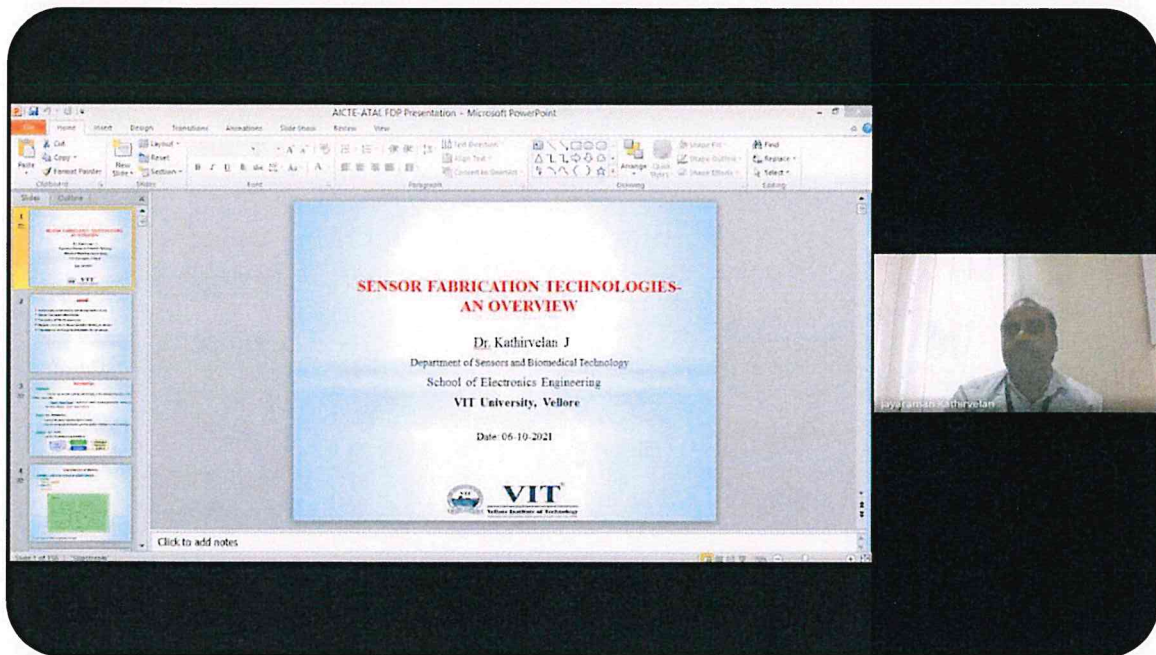
Bhatt, G. Mishra, K., Ramasubramanian, G. and Bhattacharya, S., 2019. Sensors and Actuators B: Chemical, 288, pp 442-453.



Shantanu Bhattacharya




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Feedback Details

Thrust Area :	Engineering
Sub-thrust Area :	Sensors Technology
FDP Title :	AICTE Training and Learning Sponsored Virtual Faculty Development Program on : Technology
FDP/CPDP/Workshop held at (Institute/Organisation Name) :	K S R College of Engineering
From:	2021-10-4
To :	2021-10-8
Course Code:	1614147154

Ratings have been provided on a **5-point scale**.

1. You strongly disagree with the statement
2. You disagree with the statement
3. You neither agree nor disagree with the statement
4. You agree with the statement
5. You strongly agree with the statement

About the Content of the FDP/CPDP/Workshop

The FDP/CPDP/Workshop content was relevant for me	5
The content of the FDP/CPDP/Workshop was very comprehensive	4
The content of the FDP/CPDP/Workshop was not repeated	5
The OVERALL content of the FDP/CPDP/Workshop was excellent	5

About Trainers and Teaching

The trainers had very strong expertise in the area	4
The trainers had excellent communication skills	5
All the trainers made the FDP/CPDP/Workshop very interesting	4
The trainers were very well prepared for the FDP/CPDP/Workshop	5

About the FDP/CPDP/Workshop

The FDP/CPDP/Workshop timings were very convenient	4
The pedagogy used in the FDP/CPDP/Workshop was very appropriate	4
There were sufficient breaks in between sessions	4

Workshop Assessment

The FDP/CPDP/Workshop assessment was very suitable	4
The FDP/CPDP/Workshop assessment was not at all difficult	4

Administrative Support

I did not face any connectivity issue because of the portal	5
The Audio and Video quality were excellent	4
The registration process was extremely efficient and smooth	5
The ATAL academy website is easy to navigate	5



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Information about ATAL academy was easily available	4
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OVERALL – how would you rate the FDP/CPDP/Workshop

Considering your overall with the FDP/CPDP/Workshop, how likely are you to recommend the FDPs/CPDPs/Workshops conducted by ATAL academy to your friend or colleague?	9
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This question is answered on a 10-point scale with 1 being Highly UNLIKELY to Recommend and 10 being Will definitely Recommend

Resource Persons

1st Best resource person/faculty:	P.S.Periasmy
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2nd Best resource person/faculty:	Tapan Jain
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