

Five-day workshop (online mode)

On

Design Challenges of IoT with AI & ML Applications

November 30th –December 04th, 2020

Registration form

(Last date of registration: November 20, 2020)

Name:.....

Designation:.....

Organization:

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Gender: M..... F.....

Address of communication:

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Email:.....

Mobile:.....

Qualification:.....

Payment Mode: SBI Collect

(To pay through SBI collect, select Payment

Category “Workshop/STC/FDP/Conference”)

SBI Collect Receipt No

Date Amount

Link for e-registration through Google Form:-

<https://forms.gle/M8A9XdRrvVxaDchP8>

Date:

Place:

Signature of candidate

Signature & name of

Supervisor/HoD/Principal/Director

along with Institute Seal

Patron

Prof. Lalit Kumar Awasthi

Director

NIT Hamirpur

Chairman

Dr. Ashok Kumar

Head, Department of Electronics and

Communication Engineering

Convener

Dr. Dharmendra Singh Yadav

Course Coordinator

Dr. Sandeep Kumar Singh

Dr. Dharmendra Singh Yadav

Treasurer

Dr. Dharmendra Singh Yadav

Organizing Committee

All faculty members and staff of Electronics

and Communication Engineering

Department

Address for Correspondence

Dr. Sandeep Kumar Singh &

Dr. Dharmendra Singh Yadav

Assistant Professor, ECE,

National Institute of Technology Hamirpur

Hamirpur, Himachal Pradesh, India-

177005

E-mail:sksingh@nith.ac.in,

dsyadav@nith.ac.in

Mobile No.: +91-8800988592,

+91-9425482653

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Design Challenges of IoT with AI & ML Applications

November 30th –December 04th, 2020

An Initiative of

National Institute of Technology Hamirpur,

Himachal Pradesh, India



Organized by

Department of Electronics and

Communication Engineering

National Institute of Technology Hamirpur

Hamirpur, Himachal Pradesh

Pin Code- 177 005, India

Website: www.nith.ac.in

Background

The digital space has witnessed major transformations in the last few years. The latest entrant to the digital space is the Internet of Things (IoT). For Internet of Things to take roots in our country, it is extremely significant to orient the present generation of students, and the academia as a whole, towards a mindset of IoT innovation and Development. Systematic education in IoT innovation and related areas can bring about a paradigm shift in the awareness quotient of the stakeholders. It is vital to develop the right eco-system in the educational institutions to achieve this goal. The five-day Workshop is aimed to foster the need of IoT in the country. The program focuses on the Internet of Things, Security in IoT space, Different applications of IoT, Communication challenges in IoT, IoT case studies, Application of Artificial Intelligence and Machine Learning in IoT. Hands-on sessions have been also included in the course to give the clear idea about IoT.

Objective

The objective of this course is to impart necessary and practical knowledge of latest Internet of Things based technologies with Artificial Intelligence and Machine Learning Applications, and to develop skills required to build real-life IoT, AI, ML projects.

Speakers

Faculty members of IITs, NITs, IITs and other premier Institutions/Organizations of India.

Course Contents

- State of the Art in IoT
- Structure of the Internet of Things
- Applications and impact of IoT on society

- Edge Computing in 5G: how will it work in massive MIMO
- Challenges in Ultra-dense Networks in 5G
- Terahertz Non-Orthogonal Multiple Access (THz-NOMA)
- Optimal coherent communication in power line communications
- Channel estimation in molecular communication systems
- IoT application for landslide monitoring.
- IoT application in pipeline water leakage monitoring
- Communication technologies for IoT (ZigBee, BLE, 5-G IoT),
- Mqtt protocol for IoT (full implementation hardware and software both)
- Optical Wireless Communication
- Convolutional Neural Network
- Application of AI & ML in IoT
- Wireless Sensor Network
- Evolution of Transistors & Emerging Transistors and their applications

Target Audience

Faculty members of Engineering Institutions/Universities, Research scholars and PG scholars pursuing research on the Advance electronics and communication areas, Participants from Industry/ R&D organizations

E-Certification

E-certificates will be provided to the participants, with atleast 75% attendance, upon successful completion of the program.

Important Dates

Application in the prescribed format should reach the course coordinator by email on or before **November 20, 2020**.

Registration Fee Details

Participants	Amount (in Rs.)
Participants from Academia/R&D Labs	500/-
Students	200/-
Participants from Industries	1000/-

About the Institute

NIT, Hamirpur is an institute of National Importance. The Institute offers B.Tech, M.Tech and PhD programmes in various disciplines of Engineering, Humanities and Sciences. The Institute is functioning in a vast area of above 250 acres at Anu in Hamirpur district of Himachal Pradesh and is 4 Kms from main bus stand of Hamirpur on Mandi-Jalandhar National Highway (NH-70). The city of Hamirpur is well connected with the rest of the country by road.

Nearest Railway Station: UNA (about 85 Km) and Nearest Airport: GAGGAL (Kangra) (about 85 Km)

About Department

Established in the year 1988, the Electronics & Communication Engineering (E&CE) Department NIT Hamirpur HP, has built an international reputation for excellence in teaching, research and service. E&CED is making exhilarating progress in areas ranging from VLSI, wireless communication to IoT.