About NIT Uttarakhand

National Institute of Technology, Uttarakhand is amongst the new emerging NITs, located in the hilly terrain of Srinagar Garhwal on the bank of Alaknanda River. NIT Uttarakhand was established in 2009 under the Act of Parliament of India by the Ministry of Human Resource Development and designated with the status of “Institute of National Importance”. The temporary campus of NIT Uttarakhand is functional from two campuses i.e. Polytechnic and ITI. The Institute has made a rapid growth in the recent past in terms of starting new academic programs, revision of academic curriculum, development of laboratories and infrastructure. Recently NIT-UK has started its operations from a Satellite campus at MNIT Jaipur for the B.Tech. Students and will continue to be in Jaipur for next three years. NIT Uttarakhand is one among ten most recently announced NITs and had earned repute to its credit. With continuous thrust on establishing a vibrant and research conducive environment, NIT Uttarakhand once again grabs an opportunity and announce STC on: Artificial Intelligence Applications in Internet of Things.

About the Department

The Department of Computer Science and Engineering started in 2009. The Department offers a four-year B. Tech. program, M. Tech. program in Artificial Intelligence and Computing System. The Department also offers Ph.D. program in Computer Science and Engineering. The Department has flexible academic structure with numerous core and elective courses to facilitate the students to opt for the courses of their interest.

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MNIT Jaipur 302017

TEQIP - III SPONSORED
SHORT TERM TRAINING PROGRAM
ON
ARTIFICIAL INTELLIGENCE APPLICATIONS IN
INTERNET OF THINGS

September 23rd – 27th, 2019

Organized by

Department of Computer Science and Engineering
NATIONAL INSTITUTE OF TECHNOLOGY, UTTARAKHAND

Venue: NIT Uttarakhand, Satellite Campus
MNIT Jaipur
The theme of the STC is “Artificial Intelligence Applications in Internet of Things”. The STC will be organized by the Department of Computer Science and Engineering, NIT Uttarakhand Satellite Campus in MNIT Jaipur. The STC shall be conducted under TEQIP-III.

### Detailed Aspects of the STC

The artificial intelligence (AI) is a growing field and is rapidly becoming a mainstream technology that helps to transform and empower us in unexpected ways. The emergence of smart AI programming like fuzzy logic, artificial neural network and evolutionary and nature inspired algorithms and robotics allow technologies to push past repetitive tasks and to take on increasingly adaptive and intelligent applications.

Internet of things, though, seems to be an IP based network of devices which are capable of sensing, packetizing, forwarding, and relaying, but in actuality it is a network of everything. Sensed data has to be analyzed for information retrieval and data mining. Generally data is stored onto the clouds which is made available to Decision Support System (DSS) for useful conclusions through various AI techniques such as machine learning, fuzzy logic, etc. This STC provides an amalgamation of two technologies, namely Systemics and Informatics. It will provide a platform for experts and participants to explore the interaction between two specializations and opens an opportunity for participants to witness interoperability, challenges and potential solutions. India is moving ahead in technological progress and now it’s time to embrace the new multidisciplinary approaches.

### Theme of the STC

The STTP on “Artificial Intelligence and Its Applications” focuses on applications of Artificial Intelligence on the following areas:

- Introduction to IoT & sensors
- IoT Applications and Challenges
- Requirements of IoT
- Protocol stack, wireless sensor network and IoT
- Controlling of I/O using Google assistant
- Home automation and python programming for IOT based smart applications
- Introduction to Machine Learning (ML)
- Introduction of IoT and Application in Smart City
- Recent Research Trends in Field of VLSI & Embedded Technologies
- Statistical pattern recognition techniques-SVM, KNN, Naive Bayes classifier etc.
- Dimensionality reduction techniques-PCA, LDA etc.
- Deep learning
- Applications of ML and Optimization in data mining and pattern recognition
- Hands-on training on applications of ML algorithms/EDA Tools

### Prospective Participants

This STTP is open for participants from academia, research laboratories and Industry.

**Register on or Before 22nd September, 2019**

### Registration Fee Details:

<table>
<thead>
<tr>
<th>Participation</th>
<th>Fee (INR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Scholar / Students</td>
<td>1500/-</td>
</tr>
<tr>
<td>Educational / Research Institutes / Organizations</td>
<td>1500/-</td>
</tr>
<tr>
<td>Participation from Industry</td>
<td>1500/-</td>
</tr>
</tbody>
</table>

*Note: No fee for students / scholars from TEQIP-funded Institute.*