

**One Week**  
**Atal Faculty Development Program**  
**On**  
**Recent advancements**  
**in**  
**Automatic Speech**  
**Recognition and Speaker**  
**Verification**

**27<sup>th</sup> Sep-1<sup>st</sup> Oct, 2021**  
**Jointly Organized by**



**Department**  
**Of**  
**Electronics and Communication**  
**Engineering**  
**National Institute of Technology Sikkim**

**Under the Aegis of**



**All India Council for Technical Education**  
**New Delhi**

**About NIT Sikkim**

NIT Sikkim is a public, technical and research institute located at Ravangla in the state of Sikkim, India. It was established under the act of Parliament in the year 2010, as a part of the Eleventh Five Year Plan. Since 2010, NIT Sikkim has been successfully catering the needs of thousands of students from all over the country as it aspires to become a globally recognized institution. The institute is offering B.Tech. programs in Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Mechanical Engineering and Civil Engineering, and M.Tech. programs in Computer Science and Engineering, Microelectronics & VLSI Design and Electrical and Electronics Engineering. The Institute also runs M.Sc. program in Chemistry and Ph.D. programs in all departments. Presently, the institute is working as a temporary campus in Ravangla which is a tourist town that lies between Pelling and Gangtok, and is connected by a national highway to other major towns in the state. The New Jalpaiguri Railway Station and Bagdogra Airport are 124 km and 130 km away from the campus respectively. Ravangla is situated at an elevation of 2100 meters surrounded by the Himalayan terrain, and is internationally famous for tourist spots like Buddha Park, Ralong Monastery, Temi Tea Garden etc.

**About the Department of ECE**

The Dept. of ECE was established in 2010 with the laying of the foundation of National Institute of Technology Sikkim. The Department aims to provide an outstanding research environment complemented by excellence in teaching to produce engineering professionals leading a successful career in industry, academics, and entrepreneurial endeavors. The Department offers research in the areas of ASIC & Modeling and Optimization of High-Performance Semiconductor Devices, Microwave Engineering & Antenna Design, Wireless Communication, Speech Processing, Satellite Communication and Navigation. The Dept. has good laboratory facility with modern equipment to encourage the students to cope up with the latest technologies.

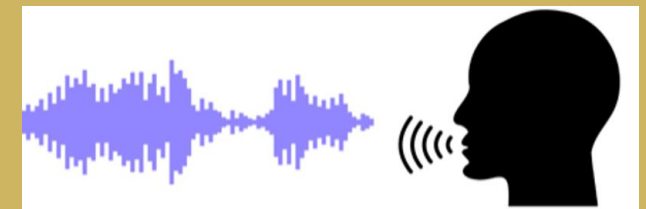
The Department offers B. Tech in ECE with an intake of 30 students/ year, M. Tech with an intake of 22 students/year and Ph. D in Engineering.

**Objective of the FDP**

The objective of this Faculty Development Program (FDP) is to acclimatize the faculties and researchers with emerging trends of the Automatic Speech Recognition and Speaker Verification by promoting their interactions with eminent speakers and experts from IITs, NITs, industries and premium institution of abroad. The sessions will include various case studies and hands on presentation of innovative applications in the field of Automatic Speech Recognition and Speaker Verification. Additionally, FDP will also help the faculties and researchers to inculcate different idea in their teaching and research by attaining the knowledge of the various facets of the Automatic Speech Recognition and Speaker Verification.

**FDP Contents**

- Speech processing from basics to recent trends.
- Design, execute, interpret and evaluate simple studies that utilises speech processing methods.
- Natural language processing: foundations to frontiers.
- Intelligent optimization techniques for speech processing
- Automatic speech recognition, acoustic modelling, language modelling and its application.
- Speaker Verification & it's application
- Machine learning and its applications
- Speech Data Analysis Methods
- Deep learning techniques in ASR and Speaker Verification.
- Hands-on Session to build ASR and speaker verification system in Kaldi toolkit and MATLAB



## Resource Persons

Eminent experts from Industry, Premium Institute from Foreign University, IITs, NITs, CFTIs will share their knowledge and expertise as per the theme of the FDP.

## Target participants

Target participants of this FDP are PG students (MTech, PhD scholars), faculty members of the various Engineering Institution and the professionals from industries and research organizations.

## Registration

- No registration fees to attend the FDP, however registration is compulsory for participation.
- Seat are limited and it will be filled up on first come first serve basis.
- Participants need to apply through AICTE-ATAL portal on or before the last date of registration as mentioned in the AICTE-ATAL portal.
- Follow the following steps to complete the registration:
  - Visit <https://atalacademy.aicteindia.org/signup> and register as a participant by filling your details.

- Select Workshop
- Select State Sikkim
- Select Month
- Select Thrust Area
- Select Mode off line
- Select ASR and Speaker Verification



## Mode

The short-term course will be organized face to face. The accommodation and tariff details will be shared in advance.

## Certificate

Certificate will be provided to the participants after conformation and attendance criteria and securing the minimum eligibility marks in the test at the end of FDP.

## Contact Persons

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## Organizing Committee

### Convener

**Prof. Mahesh Chandra Govil**

Director, NIT Sikkim

### Coordinator

**Dr. Hemant Kumar Kathania**

Assistant Professor, Dept. of ECE, NIT Sikkim

### Program Committee

**Dr. Sanjay Kumar Jana**, Asst. Prof., Department of ECE

**Dr. Surjit Kundu** Asst. Prof., Department of ECE

**Ms. Reshmi Dhara** Asst. Prof., Department of ECE

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**Dr. Sudipta Das**, Asst. Prof., Department of ECE

**Dr. Rahul Pal**, Asst. Prof., Department of ECE

### Advisory Committee

**Prof. Lalit K. Awasthi**, Director, NIT Jalandhar

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