

**CHIEF PATRON**

*Sri. P. Subba Reddy, Chairman  
Smt. G. Srividya Reddy, Secretary*

**PATRON**

*Dr. K. Ramesh Reddy, Principal*

**PROGRAMME ADVISORS**

*Dr. P.V.D. Soma Sekhar Rao, Professor,  
Dean Academics  
Dr. P. Sudhakar Rao, Professor, Dean  
R&D*

**ORGANIZING COMMITTEE**

**Convener:**

*Dr. B. Venkateshulu, Professor, HOD-ECE*

**Coordinator:**

*Dr. K. Ragini, Professor, ECE*

**Co-coordinator:**

*Dr. C. Padmaja, Assistant Professor, ECE  
M. Bhavana, Assistant Professor, ECE*

**Online Registration Link:**

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

**CONTACT INFORMATION**

*Dr. K.Ragini(Coordinator)*

*Mobile: 9849627161*

*Dr. C. Padmaja (Co-coordinator)*

*Mobile: 9502407938*

**Important dates:**

**Last Date of Registration:**

**20<sup>th</sup> Jan'21**

**Announcement of selected candidates:**

**25<sup>th</sup> Jan'21**

**Schedule of the event: 1<sup>st</sup> Feb - 5<sup>th</sup> Feb'21**

**Eligibility:**

- ❖ Academicians: Faculty in any discipline from the engineering institutions.
- ❖ Industry personnel
- ❖ Research Scholars

**Registration:**

*No registration fee is charged for the programme, since the program is fully sponsored by AICTE, New Delhi.*

*Registration will be based on First Come First Serve basis.*

*Interested candidates are requested to complete online registration as early as possible; selection of candidates will be intimated by e-mail only. Digital certificate will be issued by the ATAL academy to the participants, who maintain an attendance of minimum 80% and score more than 60% in the assessment test that will be conducted on the last day of FDP.*



**AICTE TRAINING AND  
LEARNING (ATAL)  
SPONSORED FACULTY  
DEVELOPMENT  
PROGRAMME (FDP)**

**On**

**Wearable Devices**

*(1-2-2021 to 5-2-2021)*

**Organized by**

**DEPT. OF ELECTRONICS AND  
COMMUNICATIONS ENGINEERING**

**G. NARAYANAMMA INSTITUTE OF  
TECHNOLOGY & SCIENCE (FOR  
WOMEN)  
SHAIKPET, HYDRABAD**

Approved by AICTE, New Delhi &  
Affiliated to JNTUH, Accredited by NBA  
& NAAC, ISO 9001:2015 Certified,  
Shaikpet, Hyderabad, T.S.

**PRINCIPAL**

**G. Narayanamma Institute of  
Technology & Science (for woman)  
(AUTONOMOUS)  
Shaikpet, Hyderabad - 500 104**

## WD

### About the Institute

G. Narayanamma Institute of Technology & Science, a leading engineering college in Hyderabad for women founded by Late Sri G. Pulla Reddy garu in 1997, with the objective of providing an excellent learning facility for women to pursue education in engineering. The institute aims to promote Technical Education among Women to enhance and build-up a new generation of thinkers, innovators and planners in the technical realms of Science & Technology. GNITS received UGC autonomous status for 10 years from 2018 and is affiliated to Jawaharlal Nehru Technological University (JNTU-H), Hyderabad. It is approved by All India Council for Technical Education (AICTE), accredited by NAAC & NBA (AICTE) and ISO 9001 2015 Certified Institution.

### About Dept. of ECE

ECE Department was started in 1997 with an intake of 60 and in a short period, the intake was increased to 180. The Department introduced M. Tech. with specialization in Digital Electronics & Communication Engineering in 2007 with intake of 18 students. There are 8 Doctorates in the Department. Amount of 2 crores is spent for establishment of labs. For the academic year 2018-19, the department got 25 lakhs of funding through AICTE. The infrastructural facilities have been upgraded in the department with the extension of existing

## IS

and new laboratories in VLSI, Communications, Microwave and Signal processing domains.

The companies that have made good offers and absorbed our students are Deloitte, Infosys, Accenture, Powerwave, CAP Gemini, ADP, Apps Associates, Areva T & D, Broadcom, BTBP, CMC, Convergys, DuPont, HP, HSBC, MAQ Software, OSI Technologies, Redpine Signals, Satyam BPO, Sonata, TCS, Value Labs and Virtusa.

### About ATAL-FDP

AICTE Training And Learning (ATAL) Academy Faculty Development Programme (FDP) intends to conduct faculty trainings through financial assistance from AICTE to enable faculty members in the field of technical education to introspect and learn techniques that can help prepare students for active and successful participants in a knowledge society.

### Objectives of this FDP:

- ❖ To provide an extended knowledge on Wearable devices using Internet of Things.
- ❖ To provide insight of various communication networks for wearable devices
- ❖ To explore recent research work in the field of Wearable Devices in association with IOT
- ❖ Applications of Wearable Devices with IOT

## FUTURE

### Contents

- Introduction to IoT and Wearable Devices
- Architecture of Wearable IoTs
- Low Power Embedded Systems in wearable Devices
- Communication Technologies for Wearable Devices
- Performance Analysis of Wireless Sensor Networks
- LoRaWAN Devices
- Flexible and Stretchable electronics
- Wearable body Area Sensors
- Wearable Medical Devices
- Management of wearable systems

### Resource Persons

- ✓ Professors from IIIT's
- ✓ Professors from IIT's
- ✓ Professors from NIT's
- ✓ Leading industry technocrats from industry handling the wearable devices and IO

**PRINCIPAL**

G. Narayanamma Institute of  
Technology & Science (for woman)  
(AUTONOMOUS)  
Shaikpet, Hyderabad - 500 104

AICTE Training And Learning (ATAL) Academy Faculty Development Programme (FDP) 2020-2021 on "Wearable Devices" (01-02-2021 to 05-02-2021)

S.No/Date	10 AM to 11.15 AM Session - I	11.15 AM to 11.30 AM	11.30 AM to 12.45 PM Session - II	12.45 PM to 1.45 PM	2 PM to 3.15 PM Session - III	
01-02-2021	Inaugural function	B R E A K	Recent Emerging Trends in Biomedical Engineering and Health care	L U N C H  B R E A K	Wearable Electronics, Present and Future	
	Chief Guest: Dr. N C Shivaprakash		Dr.N C Shivaprakash, IISc, Bangalore		Dr. P. Sudhakar Rao, Professor, Dean R&D, GNITS	
02-02-2021	A Technology Overview of Wearable's		Overview of flexible wearable antennas		Communication Technologies in wearable devices	
	Mr. N. Venkatesh, Senior Director, Engineering at Silicon Labs, Hyderabad		Dr. Balwinder Singh National Institute of Technical Teachers Training and Research (NITTTR)		Dr. Sachin Chaudhari, Asst. Professor, IITH	
03-02-2021	Implantables in Health care		LoRaWAN Devices		Wearable Devices And Sensors	
	Amol Kodag, Leader for the MEIC CVG Portfolio		Dr.Aftab M.Hussain, IITH,Hyd.		Supraja, Research Scholar, IITH	
04-02-2021	Wearable Medical Devices		EMG based hand prosthetic		BIOMEMS	
	Dr. M. Malini Professor Dept. of BME, OU		Dr. Neeraj Shanna Professor, BHU		Prof. S. Raghavan, Dept. of ECE, NITT	
05-02-2021	Signal Processing in Wearable Devices		Stress Management		Examination	Valedictory Function
	Dr. Bikash chandra sahana, NIT Patna		Dr. N.S. Murthy, Professor Vasavi College of Engg, Hyderabad			

Coordinator  
Dr.K.Ragini, Professor, ECE, GNITS



**PRINCIPAL**  
G.Narayanamma Institute of  
Technology & Science (for women)  
(AUTONOMOUS)  
Shaikpet, Hyderabad - 500 104

No: ATAL/2021/161/03256



ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi - 110 070

AICTE Training And Learning (ATAL) Academy

Certificate

This is certified that Padmaja Chennapragada, Assistant Professor of GNITS participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Wearable Devices" from 2021-2-1 to 2021-2-5 at G.Narayanamma Institute of Technology&science.

*[Signature]*

Director ATAL Academies



*[Signature]*

Coordinator

Principal  
G. Narayanamma Institute of  
Technology & Science (for women)  
(AUTONOMOUS)  
Shaikpet, Hyderabad - 500 104

*[Signature]*

**PRINCIPAL**  
G. Narayanamma Institute of  
Technology & Science (for women)  
(AUTONOMOUS)  
Shaikpet, Hyderabad - 500 104



**G. NARAYANAMMA INSTITUTE OF TECHNOLOGY & SCIENCE (For Women)**  
**(AUTONOMOUS)**  
**Shaikpet, Hyderabad – 500104**

Department: Electronics and Communication Engineering

2020-21

REPORT

STP on “Wearable Devices”

**Date of program:** 01-02-2021 to 05-02-2021

**Resource person:** Dr.N C Shivaprakash, IISc, Bangalore, Dr. P. Sudhakar Rao, Professor, Dean R&D, GNITS, Dr. Balwinder Singh National Institute of Technical Teachers Training and Research (NITTTR), Dr. Sachin Chaudhari, Asst. Professor, IIITH, Amol Kodag, Leader for the MEIC CVG Portfolio, Dr.Aftab M.Hussain, IIITH,Hyd., Supraja, Research Scholar, IITH, Dr. Neeraj Sharma Professor, BHU, Dr. M. Malini Professor Dept.of BME, OU, Prof. S. Raghavan, Dept. of ECE, NIT, Dr. Bikash chandra sahana, NIT Patna, Dr. N.S. Murthy, Professor, Vasavi college, Hyd..

**About the Program:** AICTE Training And Learning (ATAL) Academy Faculty Development Programme (FDP) 2020-2021 on “Wearable Devices” (01-02-2021 to 05-02-2021)

Introduction to Recent Emerging Trends in Biomedical Engineering and Health care, flexible wearable antennas, LoRaWAN Devices, BIOMEMS, EMG based hand prosthetic, Signal Processing in Wearable Devices are a part of ATAL FDP on, “Wearable Devices”. This STP aims in enhancing and enabling the teachers in to provide an extended knowledge on Wearable devices using Internet of Things. Also, to provide insight of various communication networks for wearable devices. It helps researchers to explore recent research work in the field of Wearable Devices in association with IOT and applications of Wearable Devices with IOT.

Signature of the Faculty member

PRINCIPAL  
G. Narayanamma Institute of  
Technology & Science (for women)  
(AUTONOMOUS)  
Shaikpet, Hyderabad - 500 104