



**All India Council for Technical Education**  
(A Statutory body under Ministry of HRD, Govt of India)  
Nelson Mandela Marg, Vasant Kunj, New Delhi-110070 Website: [www.aicte-india.org](http://www.aicte-india.org)



**AICTE TRAINING AND LEARNING (ATAL) ACADEMY, (ONLINE FDP)**

Date: 10th September, 2020

F. No. 01-App No.1584167341/AICTE/ATAL-HQ/2020 21/ **375**

To  
The Principal  
Kongu Engg. College  
Perundurai Railway Station Road,  
Thoppupalayam,  
Perundurai 638 060  
TAMIL NADU

**Sub: Release of a sum of Rs 93,000 /- [Rupees Ninety three thousand only] for AICTE Training and Learning (ATAL) Academy programme Online FDP of Nine Thrust Areas and Other Emerging Areas.**

Sir,

This is to convey the sanction of the Council for payment of Rs. 93,000 /- (Rupees Ninety **Three Thousand Only**) for conduct of online **AICTE Training And Learning (ATAL) Academy Programme [Wearable Devices] from 14.09.2020 to 18.09.2020** to (Kongu Engg. College, Perundurai Railway Station Road, Thoppupalayam, Perundurai, TAMIL NADU) under AICTE Training And Learning (ATAL) Academy.

This fund is being released in conformity with the terms & conditions as well as norms of the scheme as already communicated, and also being communicated in this letter.

**The instructions/guidelines to be followed by University/Institution**

**I. Release of funds and maintenance of accounts**

- The University/College/Institute shall maintain proper accounts of the expenditure out of the grants, which shall be utilized only on approved items of expenditure.
- The cost for conducting per programme will be Rs.93,000/- as per detail given as under:

1.	Honorarium for Director	Rs. 10,000/-
2.	Honorarium to Co-ordinator Rs.2000/- per day x 5 days	Rs. 10,000/-
3.	Honorarium for experts ( <i>Rs. 3000 per session for total 14 session</i> )	Rs. 42,000/-
4.	Provision for payment to Lab Attendant engaged during lab practices	Rs. 1000/-
5.	Institutional charges	Rs. 15,000/-
6.	Miscellaneous charges	Rs. 15,000/-
	<b>TOTAL:</b>	<b>Rs. 93,000/-</b>

Programmes having permission to change amounts under different heads with overall ceiling of Rs 0.93 lakh being intact.

- The grant is subject to the adjustment on the basis of Utilization Certificate in the prescribed proforma to be submitted by the University/College/Institution.

Further, the accounts of the institute will be open for test check by the Council or Controller & Auditor General of India or any other officer designated by them.

## II. Disbursement of funds to institutions

The full amount of the grant sanctioned will be released as an advance to the University/Institute through electronic transfer on the account of the University/Institute after submission of mandate form

## III. Conduct of test and issuance of certificate

- A test shall be conducted by coordinator at the end of the program.
- The certificates shall be issued to those participants who have attended the program with minimum **80% of attendance** and scored **minimum 60% marks** in the test.

## IV. Submission of documents by university/institution

- a. The following mandatory relevant documents are required to be submitted by the university/institution within one month of the completion of the program: -
  - (i) List of candidates who have successfully completed the program on the basis of the test conducted by Program Coordinator.
  - (ii) A program completion report along with photographs, videos, media report is to send after the completion of workshop along with the list of participants and Utilization Certificate, Expenditure Statement and feedback form etc. within one month of conduct of **AICTE Training and Learning (ATAL) Academy programme**.
- b. The amount of the grant shall be adjusted on submission of utilization certificate & detailed expenditure statement by University/Institution. On receipt of these documents, the total amount of financial assistance, admissible as per the norms, shall be worked out and grant-in-aid shall to adjust.

## V. General Instructions

- a. **Maximum 200 participants** may be allowed to attend online FDP on a first come first serve basis however AICTE officials may be allowed to attend over and above 200 number. Coordinators are free to admit less number of participants depending on the feasibility.
- b. **You are requested to allow new participants and discourage participants who have already done one online ATAL FDP earlier.**
- c. A test has to be conducted (may be online) on the last day and those who score more than 60% will be termed as successful candidates. Those who have **attendance 80% or more** and also **score more than 60% in the test** will be issued a **digital certificate**.
- d. These **online sessions are to be recorded** as the facility is available on the software which is being used for online delivery of FDP. You are also requested to share recording of sessions with AICTE.
- e. **Eligibility for Participants:**
  - (i) The faculty members of the AICTE approved institutions, research scholars, PG, Scholars, participants from Government, Industry (Bureaucrats/ Technicians/ Participants from Industry etc.) and staff of host institutions.
  - (ii) Not more than 30% from Host Institution
- f. If programme is not conducted in the year 2020 only, there leased amount, along with interest accrued thereon, has to be returned back to AICTE.



# AICTE Training And Learning (ATAL) Academy Sponsored Faculty Development Programme on

## "Wearable Device for Assistive Technology"

Organised by : **Department of ECE**  
Kongu Engineering College, Perundurai-638060, TamilNadu

September 14-September 18, 2020



**Course director**  
**Dr.G.Murugesan**

**Coordinators**  
**Dr.T.Meeradevi      S.Gomathi**



### Course Contents

- Fundamentals of Wearable Technologies
- Social Aspects of wearability
- Sensor Requirements in Wearable Technology
- Wearable Devices in Healthcare, Agriculture
- Data Handling in Wearable Technology
- Hands on sessions on wearable algorithms, health monitoring systems, blind and cognitive impairments

### Registration Details

- No registration Fee
- Join us on Google meet
- E-Certificate will be provided to all the participants who attend all the sessions

Registration link : <https://forms.gle/QS4yZkBLd8gYbWhQA>

#### Timings:

**FN : 9:30 AM to 11:00 AM**  
**11:30 AM to 01:00 AM**  
**AN : 02:30PM to 04:00 PM**

#### Important Dates

**Last Date for Registration: 09.09.2020**  
**Intimation Date through Email: 10.09.2020**

## SESSION SCHEDULE:

Day	Session 1(9.30am to 11.00am)	Session 2 (11.30am to 1.00pm)	Session 3 (2.30pm pm to 4.00pm)
14.09.2020	Registration & Inauguration  Wearable Technologies : Fundamentals, advancements and a road map for the future Dr.G.Murugesan , Professor / ECE / Kongu Engineering College, Perundurai	Social Aspects of wearability, Internet of Things, Devices, Objects, Transducers, Controllers & Applications  Dr.T.Meeradevi, Professor & Head / ECE / Kongu Engineering College, Perundurai	Sensor Requirements And Its Operations : Actuators / MEMS / Force/ Pressure/ Temperature/ Chemical/ Gas Sensor Etc.,  Mr.E.Jaganathan, Senior Project Associate/ Robert Bosch, Coimbatore
15.09.2020	Health monitoring through Wearable technologies for elderly people  Dr.T.Meeradevi, Professor & Head / ECE / Kongu Engineering College, Perundurai	Confidential Data Storage for Wearable Platforms, Ethical Challenges and Solutions Dr.R.Thangarajan, Professor & Head / IT Kongu Engineering College, Perundurai	Self Powered Wearable Devices for Smart farming.  Dr.S.Maheswaran, Associate Professor/ECE Kongu Engineering College, Perundurai
16.09.2020	Hands on training on wearable algorithms using Machine Learning  Ms.Ashna Robert Bosch, Bangalore	Introduction to LoRaWAN in Healthcare and precision agriculture  Mr.Karthikeyan, Assistant Manager Enthu Technology Solutions India Pvt Ltd, Coimbatore.	Demonstration on LoRaWAN IoT  Mr.Gowtham Raj G, Technical Manager Enthu Technology Solutions India Pvt Ltd, Coimbatore.
17.09.2020	Wearable Computing with IoT for Healthcare  Dr. Shriram Vasudevan, Professor / ECE , Amrita University Coimbatore	Wearable Devices for specially challenged people  Dr. Shriram Vasudevan, Professor / ECE , Amrita University Coimbatore	IoT based Air quality monitoring for healthy life.  Dr.D.Sivaraj, Assistant Professor(SRG)/ ECE, PSG College of Technology, Coimbatore
18.09.2020	Hands on training on Data Visualization, Data storage and data security  Mr.A.Jeevanantham, Assistant Professor/IT Kongu Engineering College, Perundurai-638060	Nano Wearable sensors and their applications in health care  Dr.V.Krishnaveni, Professor & Head / ECE, PSG College of technology Coimbatore	Valedictory, Feedback and Certificate Distribution

It was a great Initiative by ATAL Academy AICTE for giving us this opportunity to conduct online FDP for faculty members of technical institute of India free of cost. Huge response and better knowledge transition happened and all the participants took fruitful information in this programme. Feedback from the participants was good and satisfied. Looking forward to work with AICTE ATAL Academy for knowledge sharing in developing technologies.

concentrated on the Hands on training with the Open source tools that can be used for developing wearable devices using Internet of Things was handled. A session based on the devices used for air quality monitoring and the road map for future nanotechnology along with the assistive technology was also delivered. This FDP gave an insight of the various schemes available for design and development of wearable devices.

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*Handwritten signature:*  
 I. Meereseni  
 Prof / ECE

## **REPORT ON THE PROGRAMME**

AICTE ATAL sponsored FDP on Wearable Devices for Assistive Technology was conducted from 14.09.2020 to 18.09.2020. Around 200 participants from various parts of the country attended the programme.

Wearable technology is a category of technology devices that can be worn by a consumer and often include tracking information related to health and fitness. Wearable Devices are mainly used with the sensors for automation and also for developing assistive devices for specially challenged people. Specially Challenged people are large minority groups, starved of services and mostly ignored by society, live in isolation, segregation, poverty, charity and even pity. With the rise in the number of disabled people living in a world where technology is evolving at supersonic speed, innovators are inventing various tools that have the power to transform lives. The wearable technology has the power to transform the healthcare sector. This Programme was organized to develop awareness among the wearable devices and its applications in different fields especially for specially challenged persons and also assist them in using it properly to flourish their life.

### **About the FDP:**

FDP was organized for 5 days with 3 sessions per day. Each session concentrated on the various wearable device concepts and the technology behind it was addressed. Dr.G.Murugesan invoked the FDP and provided his session detailing evolution of various wearable devices. The programme focused on the following topics

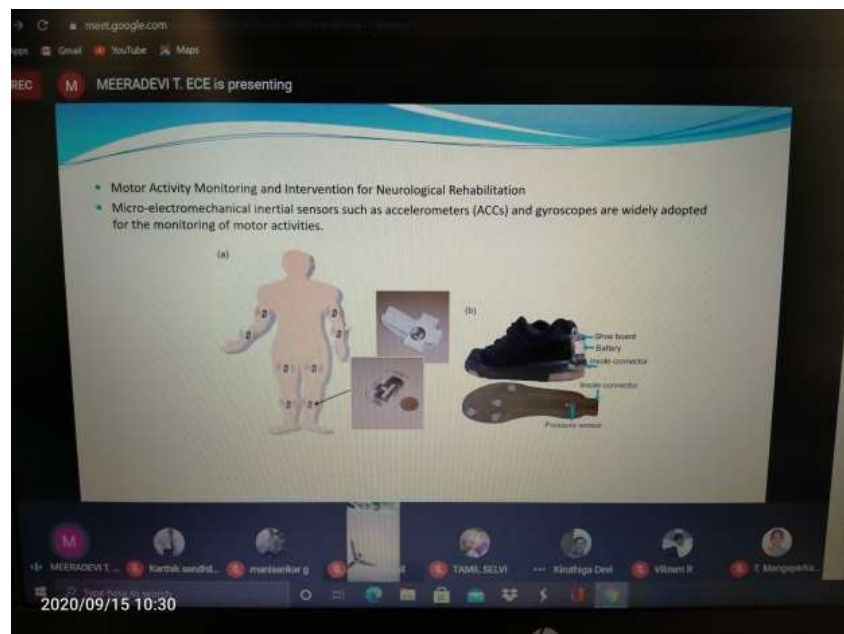
- Fundamentals of Wearable Technologies
- Social Aspects of wearability

- Sensor Requirements in Wearable Technology
- Wearable Devices in Healthcare, Agriculture
- Data Handling in Wearable Technology
- Hands on sessions on wearable algorithms, health monitoring systems, blind and cognitive impairments

### Details of the Programme Daywise:

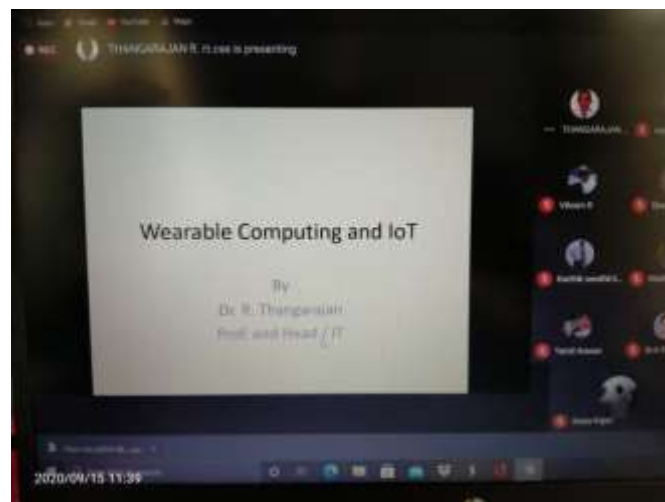


The first session was handled by Dr.G.Murugesan /Professor/ECE provided an insight on the various wearable devices that are available. The Social aspects and the challenges was discussed.





Wearable devices available for specially challenged people and elderly people was discussed with the detailed analysis of various applications. This session was handled by Dr.T.Meeradevi/Professor& Head/Kongu Engineering College. An exposure to industrial sensors was delivered by Mr.E.Jaganathan. Various sensors available and its usage was discussed.

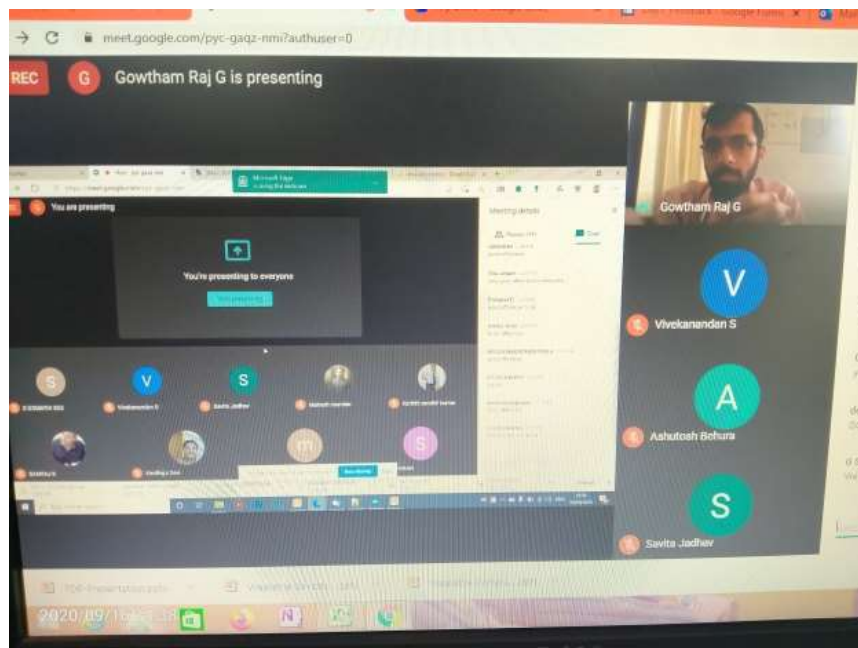


Internet of Things, Cloud Computing and wearable devices and its applications in day today life was dealt. A detailed description of storage of the data was also provided .



Wearable Portable devices modeled for Agricultural applications were detailed in this session. Smart farming systems like automatic weed sprayer and

destroyer , Automatic weed removal robot in turmeric developed was discussed and its usage in the field discussing the detailed analysis of yield was provided.



An application of Lorawan technology for assistive devices was delivered by the industrial experts.



Machine Learning and Artificial Intelligence techniques incorporated for wearable devices was delivered and this session covered more daytoday life examples and their correlation with the device technology. Moreover the FDP

No:ATAL/2020/1597376976



## 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 **G.Deepa, Assistant Professor** of **Kongu Engineering college** participated & completed successfully AICTE Training And Learning (ATAL) Academy **Online FDP** on "**Wearable Devices**" from **2020-9-14** to **2020-9-18** at **Kongu Engineering College**.

Director ATAL Academies



Coordinator



**AICTE Training And Learning(ATAL) Academy Programme**

## FORMAT FOR STATEMENT OF EXPENDITURE

AICTE File No.(As in Sanction Order/Letter) : F.No.01-App.No.1584167341/AICTE/ATAL-HQ/2020-21/375

Title of the Programme : Wearable Devices for Assistive Technology

Name of the Coordinator : Dr.G.Murugesan

<u>Sanction No. and Date</u>	<u>Grant Sanctioned</u>	<u>Details of expenditure Incurred</u> Item wise	<u>Amount</u> Rs. (in each head)	<u>No. of Participants</u>	<u>Duration of the Programme</u> (with dates)
F.No.01-App.No.1584167341/AICTE/ATAL-HQ/2020-21/375 & 10.09.2020	Rs.93,000	1. Honorarium for Director/Vice-chancellor/Head of Institution.	10,000	182	14.09.2020 to 18.09.2020 (3 sessions per day)
		2. Honorarium to Coordinator Rs.2000/- per day × 5days	10,000		
		3. Honorarium for experts (Rs.3000 per session for total 14 session).	42,000		
		4. Provision for Payment to Lab Attendant engaged during lab practices	1,000		
		5. Institutional charges	15,000		
		6. Miscellaneous charges	15,000		
		Total	93,000		
		Grant Received	93,000		
		Balance to be Received	NIL		

(1)

Name and Signature of  
Coordinator with Seal

Dr. C. MURUGESAN BE MS ME PHD.,  
Professor and Head,  
Department of ECE,  
Kongu Engineering College,  
Perundurai, Erode - 638 052.

(2)

Name and Signature of  
Head of Institution with  
Seal

Dr. V. BALUSAMY  
PRINCIPAL  
KONGU ENGINEERING COLLEGE  
THOPPUPALAYAM (PO)  
PERUNDURAI (TK) ERODE-638060  
TAMILNADU, INDIA

(3) Signature of Chartered Accountant:

Name of Chartered Accountant:

Membership No:

Rubber stamp:

Full Address:

Date: 19.10.20

NDIN: 20-26721 AAAA GIRSP80

C. VELUMANI, B.Sc., F.C.A.,  
Chartered Accountant  
33/1, Annamalai Layout,  
Nall Hospital Road, ERODE - 638 011.  
M No: 026921.



NAME & ADDRESS OF THE INSTITUTE -KONGU ENGINEERING COLLEGE  
PERUNDURAI-638060

UTILIZATION CERTIFICATE FOR THE FINANCIAL YEAR 2020-2021

Name of the Scheme under which Grant was sanctioned ATAL- FDP on Wearable Devices  
(to be submitted separately for each sanctionorder)

AICTE File No. : F.No.01-App.No.1584167341/AICTE/ATAL-HQ/2020-21/375

Name of Co-ordinator : Dr.G.Murugesan

Dates of the Programme : 14.09.2020 to 18.09.2020

Title of the ATAL Programme : Wearable Devices for Assistive Technology

Sl. No.	AICTE Sanction Order/Letter No. & Date under which grant was sanctioned	Amount (Rs.)	
1.	F.No.01-App.No.1584167341/AICTE/ATAL-HQ/2020-21/375 & 10.09.2020	93,000	Certified that out of the grant-in-aid of Rupees Ninety Three Thousand Only (in words) sanctioned by the AICTE during the financial year <u>2020-21</u> in favour of <b>Kongu Engineering College</b> as per letter mentioned in the margin, a sum of Rs.93,000/- has been utilized for the purpose for which it was sanctioned.

Certified that I have satisfied myself that the conditions on which the grant-in-aid was sanctioned have been duly fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kinds of checks exercised: -

Audited Annual Accounts of the Institute Receipt and Payment account  
Periodical Progress Reports.

(1). Name, Signature & Address of the Claimant/Awardee/Coordinator with seal:

Dr. G. MURUGESAN BE MS ME PHD.,  
Professor and Head,  
Department of ECE,  
Kongu Engineering College,  
Perundurai, Erode - 638 052.

2). Signature of Chartered Accountant:

Name of Chartered Accountant:

Membership No:

Rubber stamp:

Full Address:

Date: 19.10.20

UDIN: 2026921AAAA GR5880

C. VELUMANI, B.Sc., F.C.A.,

Chartered Accountant

33/1, Annamalai Layout,

Nalli Hospital Road, ERODE - 638 011.

M.No: 026921.

(3). Signature of Head of the Institute:

Name & Designation of the Head of Institute:

Rubber stamp:

Full Address:

Date:

Dr. V. BALUSAMY  
PRINCIPAL  
KONGU ENGINEERING COLLEGE  
THOPPUPALAYAM (PO)  
PERUNDURAI (TK) ERODE-638060  
TAMILNADU, INDIA