

## One WEEK ONLINE FACULTY DEVELOPMENT PROGRAMME

ON

### “AI and IoT for Agriculture and Health Care Applications”

23rd July to 27th July 2024

**Chaitanya Bharathi Institute of Technology (Autonomous) NAAC A++**

**Department of ECE and Department of AI & DS**

**in association with**

**CENTRE FOR TRAINING AND LEARNING, NIT Warangal**

*(Established under the PMMMNMTT Scheme, Ministry of Education, Govt. of India)*



#### Preamble

The Centre for Training and Learning (CTL) has been established at NIT Warangal with grants from the Min. of Education, through its scheme “Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)”. Under this Scheme, a separate building has been built exclusively for the CTL activities, with the state-of-art training facilities that include a studio for production and uploading of video and e-lectures on various subjects of higher education, training halls to train the faculty in various theme areas of Science and Technology, humanities and social sciences, linguistics and communication skills, pedagogy and cognition evaluation, etc. among others. One of the important objectives of the Centre is to conduct training programmes for the aspiring, newly inducted and in-service faculty in science, engineering, social sciences disciplines in higher education. Other activities of the CTL include preparation of print and e-learning materials, offering on-line courses, curriculum design, carrying out research in educational technology and pedagogy and integrating with ICT into teaching-learning process. The CTL has special programmes of training for the marginalized and women-faculty.

#### About the FDP:

As agriculture and healthcare sectors increasingly leverage Artificial Intelligence (AI) and Internet of Things (IoT) innovations, it becomes imperative for faculty members to integrate these advancements into their teaching, research, and professional practice. The FDP begins with an immersive introduction to AI and IoT technologies, elucidating their fundamental principles and diverse applications. Faculty members gain insights into precision agriculture techniques, encompassing IoT-enabled sensors for soil monitoring, crop management, and livestock tracking. In parallel, the program delves into healthcare domains, exploring AI-driven remote patient monitoring, diagnostic assistance, and personalized treatment planning. Faculty members engage in programming sessions using languages like Python, explore IoT device integration techniques, and develop AI models for data analysis and prediction. These experiential learning opportunities empower educators to impart relevant skills to students, preparing them for careers at the intersection of AI, IoT, agriculture, and healthcare.

#### Major Course Contents:

- Introduction to AI
- Deep Neural Networks for Image processing
- Introduction to IoT Applications in Agriculture and Health Care
- Hardware and Software Co-design
- System on Chip
- Interfacing sensors and actuators
- Introduction to IoT cloud
- Programming on Raspberry Pi with Python
- Machine Learning for IoT application
- Research Issues and Case Studies on ML in Embedded Systems and IoT applications.
- Precision Agriculture, Predictive Analysis
- Personalized medicine and Agriculture
- Case Studies on IoT Applications using Python and MATLAB
- Hands-on Session for ML/DL for IoT Applications

#### Registration Fee Particulars:

Faculty	Rs.1000/-
Students / Research Scholars	Rs. 500/-
Industry Participants	Rs.2000/-

Participants need to pay the Registration Fee Online using the following details:-

#### Online Transfer Details

Account Name: **HEAD CTL NITW**  
Account No: **40376545007**  
IFSC: **SBIN0020149**  
Bank and Branch: **SBI, NIT (REC) Warangal**

#### How to apply:

Participants are required to fill the online registration form by clicking on the following link:

<https://forms.gle/xzDHA5YGzfeBTf9>

#### Selection Criteria:

Selection will be done based on first-come-first-serve to a maximum number of 50 (fifty). Additionally, 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case the candidate is not selected, the registration amount will be refunded. Candidates will be issued certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

#### Important Dates:

Last date (Application & DD)	<b>05.07.2024</b>
Selection List by E- mail	<b>19.07.2024</b>
Duration	<b>23.07.2024 to 27.07.2024</b>

#### About NIT Warangal:

National Institute of Technology Warangal, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 31 post-graduate programs besides doctoral programmes. About 5000 students across the country and about 500 international students study on the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure in the form of state of the art library, seminar halls, guest houses and research laboratories.

#### About Chaitanya Bharathi Institute of Technolog (Autonomous):

CBIT is one of the premier Engineering Colleges in the state of Telangana located in the serene surroundings of Gandipet Lake. Over the past 41 years this institute has become a temple of knowledge and produced about 21,000 eminent and skillful graduate and postgraduate engineers, serving all over the world. Various programmes of the college were accredited five times by NBA (AICTE) and the institute is also accredited by NAAC A++ and UGC. UGC has granted autonomous status to this institute from the academic year 2013-2014 and renewed in 2019-2020. The total constructed area is about 6.257 lakhs sq. ft, Worth about Rs. 45.00 crores spread over 50.32 acres. The grants received from AICTE/UGC/DST are worth about Rs. 4.5 crores. The college offers Nine UG and Eleven PG courses. The institute had signed MoUs with various esteemed organizations.

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Organized by

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SPONSORSHIP CERTIFICATE



1. Name :

2. Designation:

3. Institution:

4. Email:

5. Mobile No :

6. Payment Details

Reference No:

Amount:

Bank:

Date:

Dr. /Mr. /Ms. ....

is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on “AI and IoT for Agriculture and Health Care Applications”, sponsored by the Centre for Training and Learning (CTL) during 23rd June to 27th July 2024 at Chaitanya Bharathi Institute of Technology, Hyderabad.

Signature of Head of Institution  
(with seal)

7. Address for Correspondence:

**Address for correspondence**

8. Educational Qualification:

**Dr. S. Siva Priyanka**

Assistant Professor, Department of ECE  
Chaitanya Bharathi Institute of Technology (Autonomous)  
Hyderabad- 500 075 (Telangana)  
Email: sivapriyankas\_ece@cbit.ac.in  
Ph. No: 7702229119

9. Subjects taught so far:

10.No. of refresher courses/workshops attended:

11.Experience (in years)

Teaching:      Research:      Industry:

It is requested to all the delegates, after completion of application form, all the payment details, screenshot of the payment and scanned application form must be uploaded in the following online registration link.  
<https://forms.gle/xzDHA5YGZfeBTFqf9>  
For more details about CTL of NIT Warangal, please visit:  
<https://nitw.ac.in/tlc>

**Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinator in case, I am unable to attend the course.

Place:

Date:

Signature of the Applicant

**Coordinators**

<b>Dr S Siva Priyanka</b> Assistant Professor, Department of ECE CBIT Hyderabad - 500075 (Telangana) Email:sivapriyankas_ece@cbit.ac.in Ph. No:7702229119	<b>Dr D L Srinivasa Reddy</b> Associate Professor Department of AI & DS CBIT Hyderabad - 500075 (Telangana) Email: dlsrinivasareddy_aids@cbit.ac.in Ph. No:9441794626	<b>Prof. T. Kishore Kumar,</b> Head CTL & Professor, Department of ECE NIT Warangal-506 004 (Telangana) Email: kishore@nitw.ac.in Ph. No: 8332969353
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Chief Patron	Patron	Convener	Convener
Sri. N. Subash Garu President Chaitanya Bharati Institute of Technology (A)Hyderabad - 500075 (Telangana)	Prof. C. V. Narasimhulu (Patron) Principal Department of ECE Chaitanya Bharati Institute of Technology (A)Hyderabad - 500075 (Telangana)	Dr K Vasanth (Convener) Head ECE Department of ECE Chaitanya Bharati Institute of Technology (A)Hyderabad - 500075 (Telangana)	Dr Kadiyala Ramana(Convener) Head AI & DS Department of AI & DS Chaitanya Bharati Institute of Technology (A)Hyderabad - 500075 (Telangana)