

#### **GAUUHATI UNIVERSITY**

A NAAC 'A' GRADE INSTITUTION GOPINATH BARDOLOI NAGAR, JALUKBARI GUWAHATI-781014 (ASSAM) WWW. GAUHATI.AC.IN



### **SUPPORTING DATA**

NAAC 4<sup>TH</sup> CYCLE OF ACCREDITION PROVIDED BY-IQAC, GAUHATI UNIVERSITY

## CRITERION 5 Assessment term: 2018-2023

Sub criterion 5.1 *Student Support* 



# Awareness of Trends in Technology





## विद्यया.∦\_.√ साधवेत



SCAN FOR REGISTRATION Link: https://www.aicte-india.org/atal

Login and Search for 'Workshop' State: Assam, Month: September. Thrust area: Management.

FDP Application No.: 1614848064 | Workshop ID: 1767

## AICTE Training and Learning (ATAL) FACULTY DEVELOPMENT PROGRAMME

on

ARTIFICIAL INTELLIGENCE IN

HEALTHCARE

Gauhati University located in Gopinath Bo--rdoloi Nagar towards the westend of Guwahati, is the oldest and most renowned universities in North East India. Established in1948, it has been providing quality education in this part of the country in various disciplines since its inception with a vision to perform a transformative role for the region and its people. Various courses are offered in campus while majority of the undergraduate and a few post graduate programmes are offered in affiliated colleges across the state. The university is accredited grade "A" by National Assessment ment and Accreditation Council.



: ELIGIBILITY: Faculty members of AICTE approved institutions • Research Scholars, PG scholars from government institutes • Participants from Govt, Industry (Bureaucrats/Technicians etc.) • Staff from Host Institute auhati University (max. 30% of total

participants)

Department of Electronics and Communication Engineering of Gauhati University has been providing quality education in Electronics and related areas since its inception in 2009. With a 4 year B. Tech programme and 2 year M. Tech programme, the primary strength of the departtment is exhibited in the fields of Signal Processing and Communication, VLSI design, Soft Computing and Biomedical Signal Processing. The well-equipped and sophisticated laboratories of the department with state of the art facilities are an attraction for researchers of this region. 2.7 SEPTEMBER - 0 1 OCTOBER, -2 0 2 1

Electronics and Communication Engineering

GUIST, Gauhati University, Guwahati-781014 www.gauhati.ac.in



National webinar on the Topic "Use of Basic Bioinformatics tools for UG and PG project work during COVID-19 pandemic period". A National webinar was conducted on 13th of June 2021 on the Topic "Use of Basic Bioinformatics tools for UG and PG project work during COVID-19 pandemic period". The webinar was organized by the Research Scholars' Forum, Department of Zoology, Gauhati university and Jorhat Kendriya Mahavidyalaya in association with the Zoological Society of Assam (ZSA). The webinar was conducted in Microsoft Teams online platform. More than 4000 participants registered for this national webinar. The webinar was inaugurated by the WEBINARS HELD IN 2021 most dynamic personality, Prof. Jogen Chandra Kalita, Professor and Head, Department of Zoology, Gauhati University and the General Secretary, ZSA. The keynote address was delivered by a renowned personality, Prof. Probodh Borah, HOD, Department of Animal Biotechnology, Assam Agricultural University, Khanapara, Guwahati, Assam. He delivered his lecture on the topic "Comprehending the complexities of life using Bioinformatics application", where he beautifully explained the recent trends and utility of Bioinformatics. The main theme of this webinar was delivered by the eminent speaker, Dr. Airy Sanjeev, M.Sc (Pondicherry University), Ph.D. (Tezpur University), Postdoc Fellow, IIT Guwahati. Dr. Airy ma'am has carried out a highly beneficial hands-on demonstration of different softwares and tools and their application in mainly the project work of the PG and UG students. The webinar was also graced by Sri. Priyabrata Lahkar, President, ZSA, Dr. Balendra Kr. Das, Working President, ZSA, Dr. Dulen Saikia, Principal, Jorhat Kendriya Mahavidyalaya, faculty members of many colleges and universities and many other delegates from different parts of the country. The webinar was coordinated jointly by Miss. Madhubanti Das, Research Scholar, Department of Zoology, Gauhati University and Mr. Bhaswat Ranjan Borah, Research Scholar, Department of Zoology, Gauhati University.

#### **COURSE OBJECTIVE**

Artificial intelligence (AD augments the computers to become more facilitative in solving problematic healthcare challenges. This allows interpretation of complex diagnostic data to be analyzed with ease and better understand diseases like Alzheimer, Diabetes, Cardiovascular diseases and various types of cancers like breast cancer, colon cancer etc. Automated systems based on AI. and tools like Brain computer interfaces (BCIs), arterial spin labeling (ASL) imaging, ASL-MRI, biomarkers, Natural language processing (NLP) and various algorithms helps to minimize errors and control disease progression. This FDP will discuss some of these aspects and the application of AI in healthcare with suitable hands on sessions.

Interactive sessions with experts from academia and industries from reputed organizations shall be the focus of this FDP.

All sessions shall be conducted in online mode in Google Meet platform. Links to attend the sessions shall be conveyed to selected participants in due course of time.

ECG. ECG. Speech OCT.



CHIEF PATRON Prof. Pratap Jyoti Handique. Vice Chancellor, Gauhati University

PATRON Prof. Manab Deka, Director, GUIST, Gauhati University

> CHAIRPERSON Prof. Kandarpa Kumar Sarma, HoD ECE, Gaubati University

COORDINATOR Dr. Jyoti Prakash Medhi Assistant Professor, ECE, Gauhati University



Phone: +91 94358 69070 (M) Email: jpmedhi@gauhati.ac.in

#### ORGANIZING C O M M LT T E E

Anjan Kr. Talukdar, Manash Pratim Sarma, Apurba Bikash Kalita, Aradhana Misra, Naorem Y. Meitel, Amitava Dey, Ripul Kalita, Nava Kumar Talukdar, Hirak Jyoti Goswami, Jeherul Islam, Bipul Patowary



No fee shall be collected from participants
Selection of candidates will be as per rules and regulations set by ATAL Academy
The Coordinator will finalize the list of participants with due consultation with ATAL
Selection of participants will be on first come first serve basis.
ATAL Academy of AICTE will issue the E-certificates to participants having minimum 80% attendance and 60% marks in the test, conducted towards the end of the daily sessions.

#### **COURSE OBJECTIVE**

The basic objective of the FDP is to familiarize the faculty members, research scholars and the students of this region about the scope and various aspects of quantum Computing.

#### **COURSE OUTLINES**

- Quantum Computing in the Abstract.
- Mathematics for Quantum.
- Quantum Gates; Quantum Circuits using Single & Multiple Qubit Gates.
- Programming Quantum Circuits.
- Reversible logic, reversible gates and circuits, reversible circuits in parallel computing.
- Introduction to Quantum information processing.
- · Introduction to Quantum simulator.

#### ELIGIBILITY

The program is open to people from Industry, Faculty members, Research Scholars and Post Graduate students of technical institutions, engineering colleges, universities and other recognized institutions.

#### **RESOURCE PERSONS FROM**

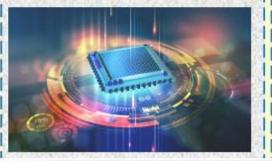
- Indian Institute of Technology Guwahati
- Indian Institute of Information Technology Guwahati
- Jadavpur University
- Gauhati University
- Assam Engineering College
- Industries and corporate houses etc.
- Other renowned Institutions.

#### ORGANIZING COMMITTEE

Chief Patron: Prof. Pratap Jyoti Handique, Vice Chancellor, Gauhati University, India Patron: Prof. Manab Deka, Director, GUIST, Gauhati University, India Chairperson: Prof. Kandarpa Kumar Sarma, HoD, ECE, GU. Coordinator: Manash Pratim Sarma, ECE, Gauhati University, India

Members:

- Jyoti Prakash Medhi
- Anjan Kumar Talukdar
- Apurba Bikash Kalita
- Aradhana Misra
- Naorem Yaipharenba Meitei
- Amitava Dey
- Ripul Kalita
- Nava Kumar Talukdar
- Hirak Jyoti Goswami
- Jeherul Islam
- Bipul Patowary





AICTE Training and Learning (ATAL) National Level Faculty Development Program on

### **Quantum Computing**

#### Online Mode

25th - 29rd October, 2021



#### Organized by

Department of Electronics and Communication Engineering, GUIST, Gauhati University, Guwahati-781014

#### **ABOUT GAUHATI UNIVERSITY**

Gauhati University (GU), a NAAC "A" grade Institute is located in Jalukbari, Guwahati, is the oldest and one of the most renowned universities in North East India. Established in 1948, it has been providing quality education in this part of the country in various disciplines since its inception with a vision to perform a transformative role for the region and its people. Various post graduate and undergraduate courses are offered in campus as well as in affiliated colleges across the state.

#### ABOUT DEPT. OF ECE

The Department of Electronics and Communication Engineering of Gauhati University has been providing quality education in Electronics and related areas since its inception in 2009. With a B.Tech programme and two M.Tech programmes, the primary strength of the department is exhibited in the field of Signal Processing and Communication. VLSI design. Soft Biomedical Signal and Computing Processing. The department is well-equipped with state of the art laboratories.



#### IMPORTANT INFORMATION

- All sessions shall be conducted in online mode in a suitable platform. Links to attend the sessions shall be conveyed to selected participants in due course of time.
- No fee will be collected from participants.
- Selection of participants will be mainly on first come first serve basis. However, Co-ordinator will have the rights in finalizing the list of participants.
- Attendance and evaluation requirements have to be fulfilled by all participants in order to avail course certificate.
- Participants need to ensure a good internet connection in order to attend the sessions.
- ATAL-FDP rules will be strictly applicable.
- Participants are advised to use one E\_mail ID only for the entire program.

#### Contact Information:

Mr. Manash Pratim Sarma E\_mail: mpsarma@gauhati.ac.in

M: 9706376020

#### REGISTRATION

The registration will be via Atal Portal only.

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

Demo of the Registration process is available here:

https://www.youtube.com/watch?v=YyNtHx7 Qiw0





Parts of Speech Tagging Workshop Department of Information Technology Gauhati University



Venue: Dept. of IT, GU Date : 10th June, 2022 Reporting Time: 10:00 A.M.

Contact Details Email: sks@gauhati.ac.in A workshop on Parts of Speech (POS) Tagging is being organised in the Department of Information Technology on Assamese and Bodo Languages in the ongoing research and development of POS.

The topics of the workshop are mentioned below

- Parts of Speech (POS) Tagging
- The language morpheme.
- · POS BIS tagset of Assamese and Bodo.
- · POS convention for NMT.
- POS Annotated tagging software 'Sanchay'.
- Q&A session.

#### Speaker

Prof. Soma Paul IIIT Hyderabad, India.

Convener Prof. Shikhar Kr Sarma

#### Faculty

Prof H.K.D Sarma Dr. Mirzanur Rahman Dr. Vaskar Deka Dr.Parismita Sarma Dr . Nabamita Deb Dr. Satyajit Sarma Kishore Kashyap Chandan Kalita

Technical Team Ahidur Zaman Prasanta Saikia Pramod Rajbongshi Treesha Bora Neural Machine Translation Workshop

Department of Information Technology Gauhati University



Venue: Dept. of IT, GU Date : 28th May, 2022 Reporting Time: 10:00 A.M.

Contact Details Email: sks@gauhati.ac.in A workshop on Neural Machine Translation is organised in the Department of Information Technology, Gauhati University. The workshop will highlight the technologies of NMT.

The topics of the workshop are mentioned below:

Setting up the Development Environment:

 Installation of packages and libraries: Subword-NMT, OpenNMT-py, IndicNLP, Sacrebleu, Ctranslate2, Fairseq, etc.

Data Preprocessing:

 Lowercasing, normalization, tokenization, detokenization, BPE

NMT Model Training:

- Using OpenNMT-py
- Using Fairseq
- · Translation using Trained NMT Model
- Evaluation using Sacrebleu
- API Development
- Data Filtering using LaBSE
- Phrase-Table Extraction

#### Speakers

Sourav Deoghare Akshay Batheja Shivam Mhaskar IIT Bombay, India.

Convener Prof. Shikhar Kr Sarma

#### Faculty

Prof H.K.D Sarma Dr. Mirzanur Rahman Dr. Vaskar Deka Dr.Parismita Sarma Dr . Nabamita Deb Dr. Satyajit Sarma Kishore Kashyap Chandan Kalita

#### **Technical Team**

Ahidur Zaman Prasanta Saikia Pramod Rajbongshi Treesha Bora

#### **Course Objective**

Introduction to IoT and its architecture, Introduction to Arduino. Participant will get to know about IoT Networking, IoT protocols, IoT cloud platform, IoT Security, IoT development board, IoT sensors and actuators. Participants will also learn about Machine learning and use of Machine learning for IoT and embedded devices.

#### **Course Outcome**

Industrial IoT/ Industry4.0: Instrumentation and Connectivity Challenges. Need and Integration of IoT with Legacy systems (PLC, SCADA, DCS, OPC-UA). Internet of Things in Process Instrumentation and Automation. Machine Health Monitoring. Cloud management. abd Data Analytics

#### Activities

Instrumentation and IoT Application. Instrumentation and IoT Solution providers. IoT Architecture. IoT and Industrial Protocols with their co-existence. Cloud Architecture. Vibration Monitoring Solutions. Edge Computing/ AI

#### **Pre-Requisites**

- · Laptop/Desktop with Webcam.
- · Good Internet Connectivity.
- · Uninterrupted Power Backup for 5 hours

#### Who Can Attend?

Programme is open to Faculty Members and PhD Research Scholars from Universities and Colleges.

#### **Contact Details**

Project Manager, E&ICT Academy, IIT Guwahati

Email: <u>eictacad@iitg.ac.in, eictacad@gmail.com</u> eictinfo.iitg@gmail.com

Follow us on: www.facebook.com/eictacadguwahati/





For details of the programme and course contents etc., please log on to Electronics and ICT Academy website: http://eict.iito.ac.in/

#### **Course Coordinators from Academy**

- Prof, Ratnajit Bhattacharjee Principal Investigator, E&ICT Academy, IIT Guwahati.
- Dr. Gaurav Trivedi Co-Principal Investigator, E&ICT Academy, IIT Guwahati.

#### Coordination Committee from Gauhati University

 Prof. Utpal Sarma Head of the Department, Department: Instrumentation and USIC, Gauhati University. Guwahati Email : utpalsarma@gauhati.ac.in Mobile: 9435545453

#### Coordinator

 Dr. Pranjal Borah Assistant Professor Department of Instrumentation and USIC Gauhati University Email : pborah@gauhati.ac.in Mobile: 9954915893;

#### How to Apply?

Online – The participants may log on to the E&ICT Academy, IIT Guwahati website: <u>http://eict.iitg.ac.in/faculty\_development..html</u> and fill up the google doc application form. The Link also provided:

https://forms.gle/mu61dW5odfQxQePcA

#### **Registration Fee**

#### No Registration Fee

This FDP can be considered at par with other QIP (Quality Improvement Program) and other provisions for recognition/credits



An Initiative of Ministry of Electronics & Information Technology (MeitY), Government of India







01 Week Faculty Development Programme

"IoT and its application on Instrumentation" (21 - 26 March, 2022)



Organized in Association with

Department of Instrumentation and USIC,



Gauhati University And Support from



Uniconverge Technologies Pvt. Ltd

Course Date: 21 - 26 March, 2022 Last Date of Registration: 11/03/2022 Online Link will be open from 25/01/2022 Per Day Timing: 10:00 am to 05:00 pm

Contact Hours for the Course 40 Hrs (Theory , Activities, Case Studies & Evaluation)



#### Speakers



Dr. Manoj Prasad is currently working as Staff Scientist VII & J. C. Bose National Fellow at National Institute of Plant Genome Research, New Delhi. His research area is genomics of foxtail millet and tomato.



Dr. Sanjib Kumar Panda is a Professor and Head, Department of Biochemistry, Central University of Rajasthan. His research is focused on understanding mechanisms of plant abiotic stress signal transduction.



Dr. Lingaraj Sahoo is a Professor at Indian Institute of Technology, Guwahati. His research interest is to develop biotic stress tolerance in crop plants.



Dr. Nirala Ramchiary is an Assistant Professor at School of Life Sciences, Jawaharlal Nehru University, New Delhi. His group focuses their effort to study genetics and genomics of Capsicum.



Dr. Suman K Samanta is working as Scientist – C at IASST, Guwahati. His research interests focus on molecular characterization of natural compounds from plants.





#### **Registration & Contact Details**

Interested participants must register and only selected candidates would be invited for the workshop. For selected candidates registration fees, local travel, boarding and lodging will be covered by DST.

Interested participants should register using the following link: <u>https://forms.gle/gEJXaNQfLcfujfWE9</u> Registration Deadline: September, 30, 2022. Shortlisted candidates will be intimated by email, latest by October, 10, 2022.

#### Eligibility criteria:

a. Minimum qualification: Post-Graduate (Science) or B.Tech. (Technology)

b. Professors/Scientists/ Post-Doctoral Fellows/Ph.D. Fellows/Industry persons who are actively involved in R&D

c. Not more than 3 participants from an institute

#### For more information

Convenor: Dr. Bhaben Tanti, Professor & Head, Department of Botany, Gauhati University. Coordinator: Dr. Niraj Agarwala, Assistant Professor, Department of Botany, Gauhati University. Contact No.: 8486027249 Access: <u>https://events.iitgn.ac.in/stuti/</u> E-mail: <u>dststutigu22@gmail.com</u> Address: Dept. of Botany, Gauhati University, Guwahati, 781014, Assam, India. Acknowledgements:

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Department of Science and Technology (DST) Funded Training Workshop under STUTI (Synergistic Training Program Utilizing the Scientific and Technological Infrastructure)

#### 7 Days Workshop on "Advance Techniques in Plant Stress Biology"

November 07-13, 2022

Dept. of Botany, Gauhati University



#### **CALL FOR REGISTRATION & PARTICIPATION**

Online-Live Learning FACULTY DEVELOPMENT PROGRAMME BIOINFORMATICS: TOOLS, TECHNIQUES & APPLICATIONS

#### 22-27 August 2022



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#### Organized by

ICT IN LIFE SCIENCES LAB National Institute of Electronics and Information Technology (NIELIT), Govt. of India-Guwahati Assam, India

#### in collaboration with

#### BIOAKADEMY

The training unit of AGT Biosciences (OPC) Pvt. Ltd. Recognized by MCA & MSME, Govt. of India. Guwahati/Ahmedabad, India

