

ABOUT GNITS

G. Narayanamma Institute of Technology & Science (GNITS) (for Women), sponsored by G.Pulla Reddy charities Trust was started on 15th December, 1997. Sri G.Pulla Reddy was an eminent businessman of great integrity and impeccable reputation. GNITS is one of the top most colleges in Telangana and AP States. The objective of GNITS is to provide an excellent learning facility for women in order 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 a period of 10 years from 2018 and is affiliated to Jawaharlal Nehru Technological University (JNTUH), Hyderabad. The institution has been accredited by NAAC for a period of six years from 2013. The institution is approved by AICTE, accredited by NBA, and is ISO 9001:2015 Certified. GNITS offers 5 B.Tech. Programmes in CSE, ECE, EEE, ETM and IT and 5 M.Tech programmes in CSE, DECS, PEED, WMC & CNIS in respective departments with 2640 students enrolled in B.Tech. stream and 180 in M.Tech stream. GNITS provides hostel facility with modern amenities catering the needs of 800 students in the campus itself. GNITS campus is enabled with Wi-Fi connectivity and has 150 Mbps leased line Internet. The college supports skill upgrading and overall development of students through Apple Lab, BTBP Lab, IOT Centre of Excellence, EDC Cell, I-Cell, Sports Club, etc. This is reflected in the placements offered to 80% of students in 2018. GNITS girls team won first prize (17 Lakhs) in Aegon international 24-hour Health and Wealth Hackathon.

ABOUT CSE DEPARTMENT

The Department of Computer Science and Engineering is one of the pioneer departments of GNITS with an intake of 180 in UG and 18 in PG. The department has 39 well qualified teaching and 10 non-teaching staff. Department has 6 Ph.D holders in which 3 are guiding 18 Ph.D. scholars and 13 were awarded from various Universities. Department of CSE established IoT Enabled Center of Excellence under AICTE MODROBS scheme. The Department has a credit of Career Award for Young Teachers from AICTE with a grant of 10.5 lakhs for a period of 3 years. The B.Tech program has been accredited by NBA in the year 2017. The students of the department are being selected through campus

recruitment in reputed MNCs like Amazon, Bank of America, JPMC, Deloitte, Accenture, Infosys, NCR, Service Now, State Street, UHG, CDK Global, Wells Fargo, VISA Inc, UX Reactor, L & T, ADP, GSK Tech., DMR Inc, DBS, BTBP etc. with 85% offers in the last academic year. Two students have been offered placement by Amazon(SDE) with highest package of 15 lakhs. Besides the teaching learning process, CSE department regularly conducts hackathons, innovation idea contests, coding challenges, workshops, guest lectures, group discussions, refresher courses, etc. to enhance the skills of students and teaching community.

IMPORTANT DATES

Last Date of submission : 28/11/2019
Information of acceptance : 29/11/2019

ALL CORRESPONDENCE TO

The HOD, CSE Dept., GNITS, Shaikpet,
Hyderabad-500104.
E-mail: cseworkshop@gnits.ac.in

ORGANIZING COMMITTEE PATRONS

Sri. P. Subba Reddy, Chairman, GNITS.
Smt. G. Srividya Reddy, Vice-Chairman, GNITS.

CHAIRMAN

Dr. K. Ramesh Reddy, Principal, GNITS.

CONVENOR

Dr. M. Seetha,
Professor & Head, Dept. of CSE, GNITS.

COORDINATOR

Dr. A Sharada
Professor, CSE.
Ph: 9652780257

CO-COORDINATORS

Mrs. D. Naga Swetha
Asst. Prof., CSE
Ph: 9949613634
Mr. G. Nagababu
Asst. Prof., CSE
Ph: 9573422687

MEMBERS

All faculty of CSE

LOCATION & TRANSPORT

The college is located 5kms from Mehdiapatnam (on the way to HCU) near Darga bus stop. BUS RouteNos(from Mehdiapatnam) : 116,118G, 216, 217, 6C, 126.

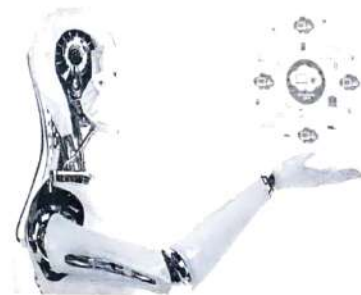
One-Week

National Level Workshop

on

Edge Intelligence: Edge Computing in Artificial Intelligence Era

2nd – 7th December, 2019



Organized by
Department of CSE

in association with
SmartBridge Educational Services Pvt. Ltd.



G. Narayanamma Institute of Technology & Science

Autonomous (For Women)
Accredited by NAAC of UGC & NBA
An ISO 9001:2015 Certified Institute
Shaikpet, Hyderabad – 500 104,
Telangana State, India.
Phone: +91-(0)-40- 23565648/649
Fax: +91-(0)-4023564187
Website: www.gnits.ac.in

ABOUT THE WORKSHOP

Edge computing is a distributed computing concept that integrates intelligence to edge devices, also called edge nodes, allowing data to be processed and analyzed in real time near the data collection source and need not to be uploaded directly to the cloud or to a centralized data processing system. Here, data is processed close to the data collection source, so there is no longer the need to transfer data to the cloud or to an on-premises data center for processing and analysis which will lessen the load on both network and servers. In addition to accelerating digital transformation for industrial and manufacturing enterprises, edge computing technology allows for more innovations including artificial intelligence and machine learning applications that are thriving with the breakthroughs in deep learning and the upgrade of hardware architectures. Billions of bytes of data, generated at the network edge, put great demands on data processing and structural optimization. Therefore, there exists a strong demand to integrate Edge Computing and AI, which gives birth to Edge Intelligence.

COURSE CONTENTS

- ❖ Introduction to AI, Edge computing and Nvidia Jetson Nano, Neural Networks and Keras framework.
- ❖ Building ANN Using Keras (Tensorflow backend) using sample dataset.
- ❖ Evaluating, Improving and Tuning the ANN.
- ❖ Introduction to Arduino Nano 33 BLE Sense, tflite models and deploying tflite models in Arduino Nano 33 BLE Sense.
- ❖ Introduction to Convolutional Neural Networks and building Image Recognition model using CNN.
- ❖ Evaluating, Improving and Tuning the CNN.
- ❖ Case study and Application development in interested research area.

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Shaikpet, Hyderabad - 500 104

RESOURCE PERSONS

Experts from academia and industry.

ELIGIBILITY

Faculty and PG students from various Engineering and MCA colleges can attend the programme. Industry persons working in the concerned discipline can also attend.

DEPARTMENT VISION

To provide engineering education in the field of Computer Science with evolving technologies and to produce self-motivated, employable individuals to society.

DEPARTMENT MISSION

1. To pioneer education in Computer Science and Engineering, Mathematics and Sciences, to mould the overall personality of students.
2. To nurture the students to be dynamic, industry ready and to have multidisciplinary skills and leadership qualities.
3. To inculcate work ethics and commitment in students for their future endeavors to serve the society.

REGISTRATION FEE

- Faculty & PG students registering for the workshop are required to pay Rs.1500/- by DD in favor of the **Principal, GNITS**, payable at Hyderabad.
- The registration fee includes workshop material, lunch, snacks, etc.

APPLICATION FORM

- Registration form can be downloaded from the website www.gnits.ac.in
- Limited hostel accommodation is available for outstation lady faculty only.
- You may confirm your participation by mailing the scanned copy of registration form and DD to the following mail id.

Email: cseworkshop@gnits.ac.in

WEBSITE: www.gnits.ac.in

One-Week

National Level Workshop

on

**Edge Intelligence: Edge Computing
in Artificial Intelligence Era**

2nd – 7th December, 2019

Application Form

1. Name:

2. Designation:

3. Institution:

4. E-mail:

5. Contact No.....

6. D.D No: Bank:Date:

7. Address for Correspondence:

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8. Educational Qualifications with specialization:

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Signature of the Applicant

Forwarded by

Signature & Seal of Sponsoring Authority

Place:

Date:

WORKSHOP REPORT

on

"Edge Intelligence : Edge Computing in the Artificial Intelligence Era"

(2nd to 7th December, 2019)

Date: 12-12-2019

Day 1:

Speakers: Mr. Ravi Katukam, Director IP & Digital Innovation, Techolution.

Mrs. Swathi Annamameni, AI Developer and Mr. Surya Tej, Python Developer, SmartBridge Educational Services Pvt. Ltd., HYD.

- Mr. Ravi Katukam has delivered lecture on "AI Challenges and applications trending on current research areas.
- The session started with Introduction to Artificial Intelligence and steps to build a model using Machine Learning.
- Later Hands-on session given on "Data Preprocessing on a Data Set".

Day 2:

Speakers: Mrs. Swathi Annamameni, AI Developer and Mr. Surya Tej, Python Developer, SmartBridge Educational Services Pvt. Ltd., HYD.

- Introduction on Neural Networks was given.
- Practical session was carried out on how to build a neural network model using Artificial Neural Networks and evaluating the accuracy of the model using ANN.

Day 3:

Speakers: Mrs. Swathi Annamameni, AI Developer and Mr. Surya Tej, Python Developer, SmartBridge Educational Services Pvt. Ltd., HYD.


- The overview was given on deployment of Neural Network models.
- Later the session moved on to Edge Computing using real time examples.
- Model deployment on Jetson Nano and Yolo Object detection Model was demonstrated.
- Hands on experience was given on hand gesture Recognition using Convolutional Neural Networks.

Day 4:

Speakers: Mrs. Swathi Annamameni, AI Developer and Mr. Surya Tej, Python Developer, SmartBridge Educational Services Pvt. Ltd., HYD.

- The session started with Interacting with ANN model and Building a Web Application using Flask Framework.
- Demonstration on Arduino Nano 33 BLE sense for detecting fruits was given.

- ❖ **Later Hackathon started with different use cases such as,**
 - Detection of Motor Cyclists without helmet using CNN
 - Crop Protection using CNN


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- Prediction of Mode of delivery in pregnancies using ANN.
- Forest Combustion Recognition using AI.
- A neural network for Wine Quality Estimation.
- Intelligent Video surveillance System.
- Emotion classification from Facial expressions using CNN.
- Digit Recognizer.
- Fruit Recognizer.
- Brain Tumor Detection.
- Face Gesture, Age and Gender Prediction.

Day 5:

Speakers: Mrs. Swathi Annamameni, AI Developer and Mr. Surya Tej, Python Developer, SmartBridge Educational Services Pvt. Ltd., HYD.

- Hackathon continued with different use cases and its implementations.

Day 6:

Speaker: Dr. Vineeth N Subramanian, Associate Professor and Head, Department of AI, IIT-Hyderabad.

- The speaker has given deep insights in the area of Deep Learning and Machine Learning.
- Different methods and models used in implementation.
- Motivated towards current research area of work.

Project Assessment:

Judges: Mr. P. Mohan, Senior Data Scientist, Independent Consultant for Data Science, Tech Mahindra.
Dr. M. Seetha, Prof. & Head, CSE.

Project assessment was done by the Judges and suggestions were given to the participants to enhance the projects in a more better way.

HOD CSE

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G Narayanamma Institute of Technology and Science

(Autonomous)

(For Women)

Department of Computer Science And Engineering

One -Week National Level Workshop on

Edge Intelligence :Edge Computing in the Artificial Intelligence Era from 2nd - 7th Dec'19

Workshop Participants:

S.No	Name	Designation	College	Signature
1	Mrs. Jayashree S Patil	Assoc. Professor	CSE, GNITS	
2	Dr. D.V.L. Parameswari	Sr. Asst. Professor	CSE, GNITS	
3	Mrs. P. Sunitha Devi	Asst. Prof.	CSE, GNITS	
4	Mrs. Ch. Mandakini	Asst. Prof.	CSE, GNITS	
5	Mrs. K. Sindhura	Asst. Prof.	CSE, GNITS	
6	Mrs. R. Pallavi Reddy	Asst. Prof.	CSE, GNITS	
7	Dr. G. Malini Devi	Asst. Prof.	CSE, GNITS	
8	Mrs. Bhageshwari Ratkal	Asst. Prof.	CSE, GNITS	
9	Mrs. Ch. Radhika	Asst. Prof.	CSE, GNITS	
10	Mrs. V. Divya Raj	Asst. Prof.	CSE, GNITS	
12	Mrs. M. Lalitha	Asst. Prof.	CSE, GNITS	
11	Mr. T. Rajesh	Asst. Prof.	CSE, GNITS	
13	Mrs. P. Neelima Reddy	Asst. Prof.	CSE, GNITS	
14	Mrs. R. Mamatha	Asst. Prof.	CSE, GNITS	
15	Mrs. T. Swapna	Asst. Prof.	CSE, GNITS	
16	Mrs. B. Geetha Kumari	Asst. Prof.	CSE, GNITS	
17	Mrs. P. Keerthi Chandrika	Asst. Prof.	CSE, GNITS	
18	Mrs. D. Naga Swetha	Asst. Prof.	CSE, GNITS	
19	Mr. G. Naga Babu	Asst. Prof.	CSE, GNITS	
20	Mr. T. Anil	Asst. Prof.	CSE, GNITS	

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Technology & Science

Shaikhp. H. V. Road, Hyderabad - 500074