

## 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 and approved by AICTE, NBA, and is ISO 9001:2015 Certified. GNITS offers 8 B.Tech. Programmes in CSE, CSE (AI & ML), CSE (Data Science), Computer Science and Technology(CST), ECE, EEE, ETM and IT and 5 M. Tech programmes in CSE, DECS, PEED, WMC & CNIS in respective departments with 2820 students enrolled in B.Tech. stream and 120 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, 2 Centre of Excellence in IOT and AI & ML, EDC Cell, I-Cell, Sports Club, etc. This is reflected in the placements offered to 85% of students in the last academic year. 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 240 each in UG and 12 in PG. The department has 56 well qualified teaching and 16 non-teaching staff. Department has 12 Ph.D holders. Department of CSE established IoT Enabled Center of Excellence and Artificial Intelligence and Machine Learning under AICTE MODROBS scheme. Two incubation centers are established namely M/s Bookmystall Hyd and M/s Intrinsic Science Lab Hyd. 15 Patents have been published till date. 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 and M.Tech program are accredited by NBA in the year 2021 and 2022 respectively. The students of the department are being selected through campus recruitment in reputed MNCs like Adobe, Amazon, Microsoft, Bank of America, JPMC, Deloitte, Accenture, Infosys, NCR, Service Now, State Street, UHG, CDK Global, WellsFargo, VISA Inc, UX Reactor, L & T, ADP, GGK Tech., DMR Inc, DBS, BTBP etc. with 85% offers in the last academic year. One student is offered placement by Adobe with highest package of 51 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.

## MODE OF CONDUCT: In house (Offline Mode)

\*Participants will be selected based on First come First Serve.

## ORGANIZING COMMITTEE CHIEF PATRONS

**Sri. G Raghava Reddy, Chairman, GNITS.**

**Smt. G. Srividya Reddy, Vice-Chairperson, GNITS.**

## PATRON

**Dr. K. Ramesh Reddy, Principal, GNITS.**

## CONVENOR

**Dr. A. Sharada**

Professor & Head, Dept. of CSE, GNITS.

## COORDINATOR

**Dr G Malini Devi**

Assoc Professor, CSE, Ph: 9885016061

## CO-COORDINATOR

**Dr. Jayashree S Patil**

Assoc Professor, CSE, Ph: 9966886296

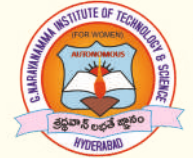
## LOCATION & TRANSPORT

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

## REGISTRATION INFORMATION

- Registration must be through ATAL portal.
- No Registration Fee
- Maximum no. of participants:50
- First signup at <https://atalacademy.aicte-india.org/signup>
- After getting login, first fill General details: Any Identity proof (JPEG File) and NOC from present organization (PDF file).
- Select GNITS (December 18th – 23rd 2023) and APPLY.

# One-Week National Level



## AICTE TRAINING AND LEARNING (ATAL) ACADEMY SPONSORED

### Faculty Development Program

On

## "Deep Learning-Enabled Intelligent Diagnosis System for Retinal Vein Occlusion: Redefining Diagnostic Accuracy"

18<sup>th</sup> Dec -23<sup>rd</sup> Dec 2023



Organized by  
Department of CSE

**G. Narayanamma Institute of Technology & Science**  
Autonomous (For Women)  
Accredited by NAAC & 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](http://www.gnits.ac.in)

## ELIGIBILITY

- Faculty Members of the AICTE approved institutions, research scholars and industry professionals.
- External participants (traveling more than 20KM one side to attend the FDP) who attend at least 90% of the sessions shall be reimbursed with the cost of traveling, with an amount of Rs. 2000/-
- Working lunch will be provided
- Accommodation will be provided on request (on payment).

## ABOUT THE WORKSHOP

Retinal vein occlusion (RVO) is indeed the second most common retinal vascular disease after diabetic retinopathy. It affects a significant number of individuals worldwide, with an estimated 16.4 million patients. The prevalence of RVO in the general population over 40 years of age is approximately 2.1%. The risk factors associated with RVO include hypertension, diabetes, and hyperlipidemia. In the past, angiography, including fluorescein angiography, was a crucial diagnostic tool for identifying retinal vascular lesions. However, angiography is an invasive procedure, making frequent examinations challenging.

Recently, there have been significant advancements in image processing technology, particularly using deep learning (DL). These technologies have shown remarkable progress in various medical imaging applications, including ophthalmology and its widespread implementation and integration into clinical practice may require further research, validation, and refinement.

## COURSE CONTENTS

1. Introduction to Artificial Intelligence, Machine Learning, Deep Learning and Representation Learning
2. Introduction to Retinal Vein Occlusion.
3. Machine Learning with Feature Representation
4. Machine Learning Basics – Linear Regression, Perceptron's, Multilayer Perceptron's, Stochastic Gradient Descent, Backpropagation
5. Deep Learning Regularization Techniques: L1, L2, Noise Injection
6. Data Augmentation, Dropout, Ensemble, Parameter Sharing, etc.

7. Basics of Tensor Flow/Keras/PyTorch/Python.
8. Neural Networks for Retinal Vein Occlusion Recognition: ResNet-50, Inception-v3, DenseNet-121.

## OUTCOMES OF FDP

1. To analyse the techniques of Artificial Intelligence, Machine Learning, Deep Learning and Representation Learning.
2. Implement Deep Learning Regularization Techniques: L1, L2, Noise Injection to identify risk factors associated with RVO include hypertension, diabetes, and hyperlipidemia.
3. To reduce the Retinal Vein Occlusion with effective tools.

## 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.

## REQUIREMENTS TO GET CERTIFICATE

Continuous Comprehensive Assessment of Candidates shall be carried out and certificate would be issued up on achieving at least 70% to receive over all in following aspects in the weight age mentioned below.

- Attendance – minimum 80% attendance - (individual)- weightage 10%
- One assessment, - combination of MCQs/short answer type/reasoning based, etc. - (Individual) - weightage15 %
- 3-4 Page Article Summary/per Team - (Team & Individual)- weightage20%.
- Teaching Practice - (Individual)-weightage10 %
- Project/ Live industry problem solving - (Team & Individual)-

weightage15 %

- Report/outcome of Industrial visit- (Team) at the last session - weightage10%
- Reflective journal - (Individual) - at the last session - weightage15%.

## RESOURCE PERSONS

Resource Persons from Leoforce Incorporation, Smartbridge, IDRBT Leading Industry Technocrats from Industry and Professors from IIT, Hyderabad, NIT Warangal, HCU, SRM University A.P and other reputed State Universities will deliver lectures and hands-on sessions.

Dr. M. Srinivas, NITW

Mr. Shivam Shivare, Smart Bridge

Dr. Gella Lakshmi, HCU, Hyderabad

Dr. M.Seetha, GNITS

Dr. Dileep Kumar A, Leoforce Incorporation

Dr. Satish Peddoju, IIT Hyderabad

Dr. V. Ravi, IDRBT

Dr. N.Kalyani, GNITS

Mrs Y. Sravani, GNITS

Dr. Morampudi Mahesh Kumar, SRM University

Dr. Someshwar, OU

## SCHEDULE OF THE EVENT

18-12-2023 to 23-12-2023

## IMPORTANT DATES

Last Date of submission : 11/12/2023

Information of acceptance : 13/12/2023

## CONTACT DETAILS

**Dr . G. Malini Devi (Coordinator)**

Mobile: 9885016061,

**Dr. Jayashree S Patil (Co-Coordinator)**

Mobile: 9966886296