



G.PULLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)
KURNOOL, ANDHRA PRADESH-518007.



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ORGANIZES

ONE WEEK ONLINE FACULTY DEVELOPMENT PROGRAM
ON

ADVANCES IN SIGNAL PROCESSING AND ARTIFICIAL INTELLIGENCE TECHNOLOGIES

RESOURCE PERSONS



Prof. Shaik Rafiq Ahamed
Professor,
Department of EEE,
IIT, Guwahati.



Dr. Sanjaya Kumar Panda
Assistant Professor,
Department of CSE,
NIT, Warangal



Dr. Lov Kumar
Assistant Professor,
Department of CSIS,
BITS, Pilani
Hyderabad Campus

NO REGISTRATION FEE

REGISTER HERE @: https://bit.ly/FDP_Reg

📅 : 6th July – 10th July 2020

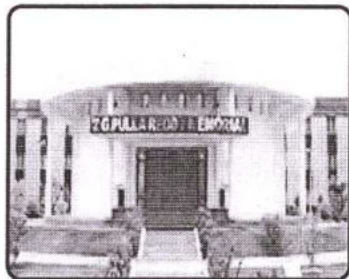
🕒 : 10:30 AM to 12:00 PM

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PRINCIPAL

**G. Narayanamma Institute of
Technology & Science (for women)
(AUTONOMOUS)
Shaikpet, Hyderabad - 500 104.**

ABOUT COLLEGE



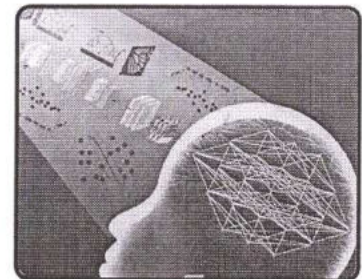
G PULLA REDDY ENGINEERING COLLEGE IS BRAINCHILD OF **LATE SRI G PULLA REDDY,** THE RENOWNED **PHILANTHROPIST** AND A GREAT HUMANIST, ESTABLISHED IN 1984-85, IT IS ONE OF THE EARLIEST PRIVATE ENGINEERING COLLEGES IN ANDHRA PRADESH STATE, GPREC HAS BEEN FUNCTIONING AS AN AUTONOMOUS INSTITUTION SINCE 2006, THE COLLEGE IS BEING MANAGED BY **G PULLA REDDY CHARITES TRUST, HYDERABAD,** THE TRUST WAS INSTITUTED BY **LATE SRI G PULLA REDDY GARU IN 1975** WITH THE MOTTO OF RENDERING SERVICE TO THE SOCIETY

ABOUT DEPARTMENT



THE ECE DEPARTMENT WAS ESTABLISH IN THE ACADEMIC YEAR 1984-85 WITH AN INTAKE OF 40 AND CURRENTLY WITH 180 REGULAR AND 36 LATERAL ENTRY STUDENTS THE DEPARTMENT IS ALSO OFFERING A POST GRADUATE PROGRAMME WITH SPECIALIZATION OF VLSI EMBEDDED SYSTEMS WITH INTAKE OF 18 STUDENTS. THE DEPARTMENT HAS HIGHLY QUALIFIED FACULTY HAVING SPECIALIZED IN DIVERSIFIED AREAS OF TECHNOLOGY LIKE COMMUNICATIONS, SIGNAL PROCESSING, MICROELECTRONICS, CONTROL AND DIGITAL ELECTRONICS. THE DEPARTMENT IS WELL EQUIPPED AND HAS EXCELLENT LABORATORY FACILITIES

ABOUT PROGRAM



SMART SYSTEMS ARE THE NEED OF MODERN SOCIETY. WE WISH TO DEVELOP SYSTEMS THAT ARE INTELLIGENT ENOUGH TO AUTOMATICALLY TAKE DECISIONS IN COMPLEX REAL-LIFE SITUATIONS. THANKS TO ADVANCEMENT IN PROCESSING, AVAILABILITY OF ENOUGH DATA, DEVELOPMENT OF STATISTICAL TOOLS THAT HAVE ENABLED US TO BUILD SUCH SYSTEMS AI IS PERVERSIVE TODAY THAT YOU PROBABLY USE IT DOZENS OF TIMES A DAY WITHOUT KNOWING IT. MANY RESEARCHERS ALSO THINK IT IS THE BEST WAY TO MAKE PROGRESS TOWARDS HUMAN-LEVEL AI. THE COURSE HAS BEEN DESIGNED TO COVER BOTH THEORETICAL AS WELL AS THE PRACTICAL CONCEPTS IN FIELD OF AI

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DAY-WISE SCHEDULE

DAY-1:

SPEAKER: Prof.S.RafiqAhamed, Professor,Dept. of EEE, IIT Guwahati

TOPIC: Adaptive Signal Processing

DAY-2:

SPEAKER: Dr.Sanjaya Kumar Panda, Assistant Professor, Dept. of CSE, NIT Warangal

TOPIC: Fuzzy Logic

DAY-3:

SPEAKER: Dr.Lov Kumar, Assistant Professor, Dept. of CSIS, BITS pilani, Hyderabad Campus

TOPIC: Ensemble Methods in AI

DAY-4:


SPEAKER: Dr.Lov Kumar, Assistant Professor, Dept. of CSIS, BITS pilani, Hyderabad Campus

TOPIC: Ensemble Methods in AI

DAY-5

SPEAKER: Dr.Sanjaya Kumar Panda, Assistant Professor, Dept. of CSE, NIT Warangal

TOPIC: Case Studies of AI


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CHAIRMAN

SRI P SUBBA REDDY, CHAIRMAN

CHIEF PATRON

DR. B SREENIVASA REDDY, PRINCIPAL

PATRON

**DR.S NAGARAJA RAO, PROFESSOR & HEAD OF ECE
DR.K SURESH REDDY, PROFESSOR & DEAN OF ECE**

CONVENOR

DR.SHAIK SAHEB BASHA, PROFESSOR OF ECE

CO-CONVENORS

**DR.R SUDHEER BABU, ASSOCIATE PROFESSOR OF ECE
DR.S VYSHALI, ASSOCIATE PROFESSOR OF ECE
SRI.B SIVA REDDY, ASSISTANT PROFESSOR OF ECE
SRI.D SHARATH BABU RAO, ASSISTANT PROFESSOR OF ECE
SMT.G DIVYA PRANEETHA, ASSISTANT PROFESSOR OF ECE
SRI.G PAVAN KUMAR, ASSISTANT PROFESSOR OF ECE**



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G. PULLA REDDY ENGINEERING COLLEGE

G.Pulla Reddy Engineering College (Autonomous)
Kurnool-518007, Andhra Pradesh, India.
Accredited by NBA of AICTE & NAAC of UGC with A+ grade
Affiliated to JNTUA, Ananthapuramu



Certificate of Participation



This is to certify that

PARUPALLI SRIPADMA, Assistant Professor

of **G.Narayanamma Institute of Technology and Science**

has participated five day National level Online Faculty Development Program on ,
"Advances in Signal Processing and Artificial Intelligence Technologies",

Organized by G.Pulla Reddy Engineering College (Autonomous): Kurnool-518007,
from 06-07-2020 to 10-07-2020.



Dr. Shaik Saheb Basha
Prof., ECE.GPREC
Convener

Dr.S.Nagaraja Rao
Prof. & HOD,ECE
GPREC

Dr.B.Sreenivasa Reddy
Principal
GPREC

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Department: Electronics and Communication Engineering
2020-21
REPORT.

NPTEL FDP on “Programming, Data Structures and Algorithms using Python”

Date of program: 14 Sep 2020 to 06 Nov 2020

Resource person: Prof. Madhavan Mukund

About the Program:

The course quickly builds up basic concepts such as conditionals, loops, functions, lists, strings and tuples. It goes on to cover searching and sorting algorithms, dynamic programming and backtracking, as well as topics such as exception handling and using files. As far as data structures are concerned, the course covers Python dictionaries as well as classes and objects for defining user defined datatypes such as linked lists and binary search trees.

Week 1 was on Informal introduction to programming, algorithms and data structures, Downloading and installing Python ,gcd in Python: variables, operations, control flow - assignments,condition-als,loops,functions

Week 2 was on Python: types, expressions, strings, lists, tuples, Python memory model: names, mutable and immutable values

List operations: slices etc Binary search, Inductive function denitions: numerical and structural induction Elementary inductive sorting: selection and insertion sort, In-place sorting

Week 3 was on Basic algorithmic analysis: input size, asymptotic complexity, O() notation, Arrays vs lists, Merge sort ,Quicksort, Stable sorting

Week 4 was on Dictionaries, More on Python functions: optional arguments, default values, Passing functions as arguments, Higher order functions on lists: map, lter, list comprehension

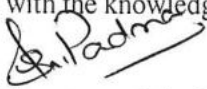
Week 5 was on Exception handling. Basic input/output, Handling files, String processing

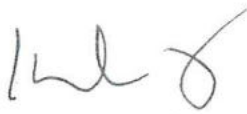

Week 6 was on Backtracking: N Queens, recording all solutions, Scope in Python: local, global, nonlocal names, Nested functions Data structures: stack, queue, Heaps

Week 7 was on Abstract datatypes, Classes and objects in Python, "Linked" lists: find, insert, delete, Binary search trees: find, insert, delete Height-balanced binary search trees

Week 8 was on Effcient evaluation of recursive definitions: memorization, Dynamic programming: examples, Other programming languages: C and manual memory management, Other programming paradigms: functional programming.

The overall experience after attending the course was an enriched one with the knowledge of basics of python.


Signature of the Faculty member



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