NEWSLETTER

JULY - DEC 2022

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

IT CHRONICLE

DEPARTMENT OF INFORMATION TECHNOLOGY

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NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF INFORMATION TECHNOLOGY

VISION OF THE DEPARTMENT

To transform into a research and technological hub to develop prominent IT professionals to serve the needs of industry and society.

MISSION OF THE DEPARTMENT

The department of Information Technology is committed to

M1: Induce preliminary and contemporary IT principles of the industry among the students.

M2: Develop strong force of students to solve the real time problems of the IT industry.

M3: Incubate the students with emerging entrepreneur intelligence.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The graduates of the program are able to:

PEO 1	Apply the knowledge of mathematics, science and engineering fundamentals to identify and solve IT and engineering problems.
PEO 2	Use various software tools and technologies to solve problems related to Academia, industry and society.
PEO 3	Work with ethical and moral values in the multi-disciplinary teams and can Communicate effectively among team members with continuous learning.
PEO 4	Pursue higher studies and develop their career in software industry.

PROGRAM SPECIFIC OUTCOMES (PSOs)

Students will be able to:

PSO 1	Ability to analyze and develop computer programs in the areas related to Algorithms, system software, application software, web design, big data analytics, database design and networking for efficient design of computer based systems of varying complexity.
PSO 2	Design, implement and evaluate a computer-based system to meet desired needs.
PSO 3	Develop IT application services with the help of different current engineering tools.

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PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

PO1: **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Inspirational Quotes

Any sufficiently advanced technology is indistinguishable from magic

NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET
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DEPARTMENT OF INFORMATION TECHNOLOGY

VISION

- To emerge as a Centre of excellence in technical education with a blend of effective student centric teaching learning practices as well as research for the transformation of lives and community

MISSION

- Provide the best class infrastructure to explore the field of engineering and research.
- Build a passionate and a determined team of faculty with student centric teaching, imbibing experiential and innovative skills.
- Imbibe lifelong learning skills, entrepreneurial skills and ethical values in students for addressing societal problems.

NEW TRENDS IN TECHNOLOGY:

Robotic Process Automation and Artificial Intelligence

Taking into account the technological evolution of the last decades and the proliferation of information systems in society, today we see the vast majority of services provided by companies and institutions as digital services. Industry 4.0 is the fourth industrial revolution where technologies and automation are asserting themselves as major changes. Robotic Process Automation (RPA) has numerous advantages in terms of automating organizational and business processes. Allied to these advantages, the complementary use of Artificial Intelligence (AI) algorithms and techniques allows to improve the accuracy and execution of RPA processes in the extraction of information, in the recognition, classification, forecasting and optimization of processes. In this context, this paper aims to present a study of the RPA tools associated with AI that can contribute to the improvement of the organizational processes associated with Industry 4.0. It appears that the RPA tools enhance their functionality with the objectives of AI beingextended with the use of Artificial Neural Network algorithms, Text Mining techniques and Natural Language Processing techniques for the extraction of information and consequent process of optimization and of forecasting scenarios in improving the operational and business processes of organizations.

The availability of digital services is seen as a growing trend at a company-level, taking into account the greater use of the proliferation of information systems in society and the technological evolution that we are witnessing at various levels. The form of communication between citizens, companies and institutions started to be mostly through the exchange of digital information. In view of the high volume of informationand digital documentation exchanged between entities, in general, it is humanly impossible to respond in a timely manner to the processing of all information and to follow up on processes internally.

Process Automation (RPA), which can be defined as a "technique that results in the automatic execution of administrative, scientific or industrial tasks" which uses robotics as a "set of techniques concerning the operation and use of automata (robots) in the execution of multiple tasks in place of man" for "how to do a thing; standard; method; system". In this context and in a nutshell, the RPA tools correspond to a set of techniques that aim to improve the work by reducing the number of repetitive tasks, automating them. In addition to the use of RPA, the complement with Artificial Intelligence (AI) - algorithms and techniques - allows to improve the precision of the execution of automated processes. Industry 4.0 reviews a set of technologies and sensors that allows an even greater advance in the processes and applications of automation of AI applications for organizational processes, contributing to a better performance and presenting new opportunities.

The main contribution of this paper is essentially in providing a review of AI and RPA contributions to Industry 4.0 as well as in the analysis and comparison of several proprietary and open source tools regarding their functionalities. This document is structured as follows. In chapter two the general concept about Robotic Process Automation is presented and in section 3 the general concept of Artificial Intelligence.

FACULTY FOCUS:

1. Dr.G.Syam Prasad,Professor,HOD of IT-Dept has participated in Virtual Conference On "Artificial Intelligence and Its Emerging Areas, (NEC-ICAIEA-2K21)",16th-17th July 2021 Organized by Department of Computer Science and Engineering in Association with CSI, Narasaraopeta.

2. Dr.G.Syam Prasad,Professor,HOD of IT-Dept has participated in one week Faculty Development Program on Outcome Based Education Conducted by Education and Educational Management Department from 19-09-2022 to 23-09-2022.

3. P.Ramesh Babu , Assistant professor ,IT-Dept has participated in one week Faculty Development Program on Nano Sensors and Devices Conducted by Applied Science Department from 22-08-2022 to 26-08-2022.

4. P.Ramesh Babu , Assistant professor ,IT-Dept has participated in one week Faculty Development Program on Amazon Web Services Conducted by Department of CSE,GMR INSTITUTE OF TECHNOLOGY,RAJAM from 22-08-2022 to 27-08-2022.

5. P.Ramesh Babu , Assistant professor ,IT-Dept has participated in one week Faculty Development Program on Outcome Based Education Conducted by Education and Educational Management Department from 19-09-2022 to 23-09-2022.

6. T.Venkata Manohar , Assistant professor ,IT-Dept has participated in one week Faculty Development Program on Outcome Based Education Conducted by Education and Educational Management Department from 19-09-2022 to 23-09-2022.

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7. Venkata Manhoar , Assistant professor ,IT-Dept has participated in one week Faculty Development Program on Managerial Skills for Technical Teachers and Administrators Conducted by Educational Management Department from 26-09-2022 to 30-09-2022.

8. U. Vijay Kumar got Best Teacher Award on Happy Teachers Day (05-09-2022).

DEPARTMENTAL ACTIVITIES:

TECH HUB Training had conducted for III BTECH I SEM OF IT Students on 03-09-2022.

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Bytexl CRT Training had conducted for II B.TECH I SEM OF IT students on 28-11-2022

HACKTHON training had conducted for III BTECH I SEM of IT Students On 08-08-2022.

IT Department Had Celebrated Happy Engineers Day on 15-09-2022.

Internship Viva Voice had conducted for IV B.TECH I SEM OF IT students on 26-11-2022

Honey Well Training had conducted for III BTECH I SEM OF IT Students on 26-10-2022.

INDUSTRIAL VISITS:

I B.TECH II SEM OF IT students were Visited at MITTAPALLI SPINNING MILL on 18-07-2022

MOUs:

Department of IT had participated in MoU SIGNING CEREMONY NEC with EDUSKILLS FOUNDATION, ODISHA on 07-07-2022

Department of IT had participated in Mou exchange with ExceleR On 30-07-22.

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STUDENT FOCUS:

Training Programs:

S.no	Dept.	Year	Training	Duration
1	IT	2-1	Bytexl	21-11-2022 to 26-11-22
2.	IT	3-1	Tech Hub	03-09-2022 to 10-09-22
3	IT	3-1	Hackthon	08-08-2022 to 08-08-22
4.	IT	3-1	Honeywell	26-10-2022 to 26-10-22

STUDENT CERTIFICATIONS PARTICIPATIONS IN WORKSHOPS / CONFERENCES/NSS PROGRAMS: STUDENT CERTIFICATIONS:

S.no	Name	Dept	Title	Certificate
1	Are Rajasekhar Reddy	IT	Cloud computing	NPTEL
2	Amballa Aswini	IT	Soft Skills	NPTEL
3	B.Poojitha	IT	Clouding Computing	NPTEL
4	B.Penchala Pratap		Cloud Computing	NPTEL
5	B.Sai Lakshmi Aparna	IT	Cloud Computing	NPTEL

CO CIRCULAR ACTIVITIES (SPORTS):

S.no	Dept	Year	Event	Prize
1	IT	3rd & 4th	Cricket	Winners
2	IT	3rd & 4th	Cricket	Runners
3	IT	3rd	Full Stack Web Development	2nd
4	IT	2nd	Innovation Day Competitions	2nd
5	IT	3rd	Photography Competitions	3rd

NSS ACTIVITIES:

Information Technology department students were participated"**75thAzadiKaAmritMahotsavHarGharTirangaPalanduZillaJatiyaPatakaShobaYatra",** as a part of NSS activityon10/08/2022 at S.S & N College Narasaraopet**.**

Information Technology department students were participated in "**Painting and Essay Writing Competition on the eve of AzadiKaAmritMahotsav",** as a part of NSS activityon11/08/2022**.**

Free Dental Check Up Program had conducted for III BTECH I SEM OF AI Students on 09-09-2022

Faculty from information Technology department participated in "**5K RUN**", on the occasion of world stroke day organized by Mahatma Gandhi Neuro Center Hospital Narasaraopet on 29/10/2022.

Faculty from Information Technology department participated in "**National United Day**", on the birth Anniversary of Sardar Vallabhai Patel organized by Narasaraopeta Engineering College Narasaraopet on 31/10/2022.

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CAMPUS PLACEMENTS:

14 students of IT got selected in various companies listed below.

HT No.	Name of the Student	Selected company name	Date of recruitment	Annual Package
19471A1204	ATTHULURI VISHNU	MU SIGMA	AUG 02	5.0 LAKH
19471A1207	BHNAU PRAKASH CHEKKA	PROLIFICS	AUG 16	4.0 LPA
19471A1209	BUSI HARIKA	NEEBAL	NOV 10	4.5 LPA
19471A1214	EVANI PRASANNA HARI GOPAL	HCL	AUG 26	4.25 LPA
19471A1215	GANGINENI RAVALI	HCL	AUG 26	4.25 LPA
19471A1217	SUMATHI GOTTIPATI	AMDOCS	SEP 20	5.23 LPA
19471A1223	KALERAO SRAVANI	HCL	AUG 26	4.25 LPA
19471A1227	KONDA VENKATESWARA REDDY	HCL	AUG 26	4.25 LPA
19471A1229	KOTHAMASU MOHAN AJAY KUMAR	APPSASSOCIATE	NOV 20	6.0LPA
19471A1232	MADDULA ROOPESH REDDY	TECH MAHINDRA	NOV 9	3.25LPA
19471A1234	MAJETI VENKATA SASI KUMAR	TCS	NOV 24	3.36
19471A1248	ABDUL RAFI SHAIK	SAVANTIS	SEP 9TH	3.25LPA
19471A1258	SYED SUHANA	TCS	NOV 24	3.6LPA
19471A1260	LAKSHMI SAI LIKITHA VELAVARTHIPATI	TECH MAHINDRA	NOV 9	3.25LPA

Academic Toppers

The following students are toppers in the end examinations in their respective classes

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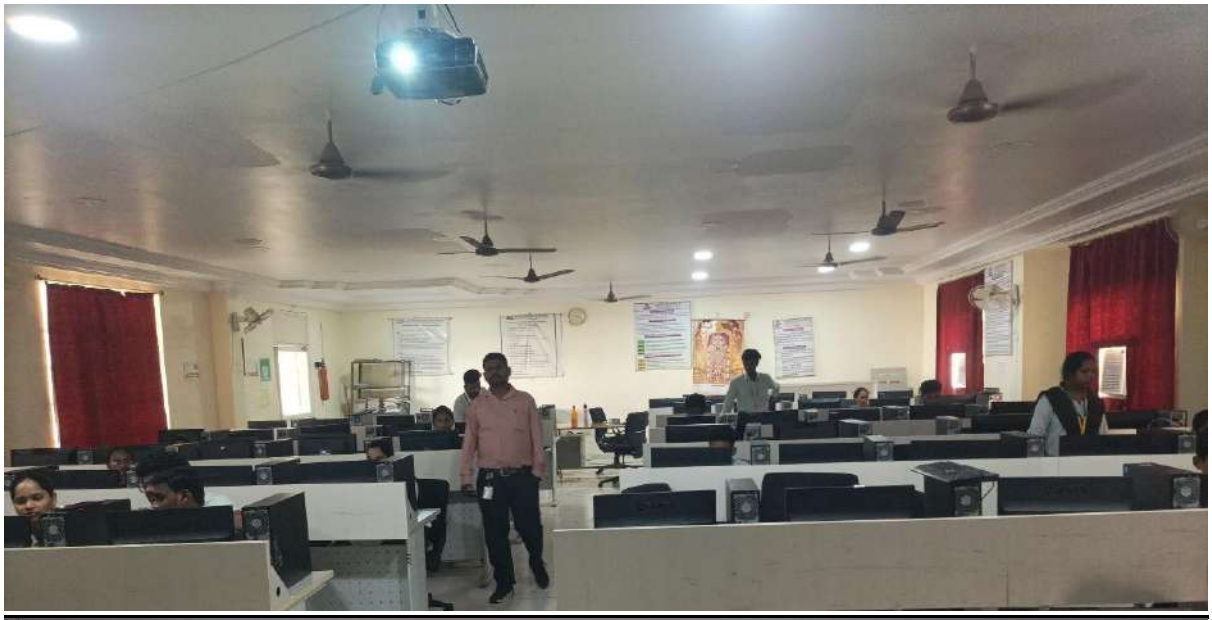
Students participated in the CODE ARCADE event



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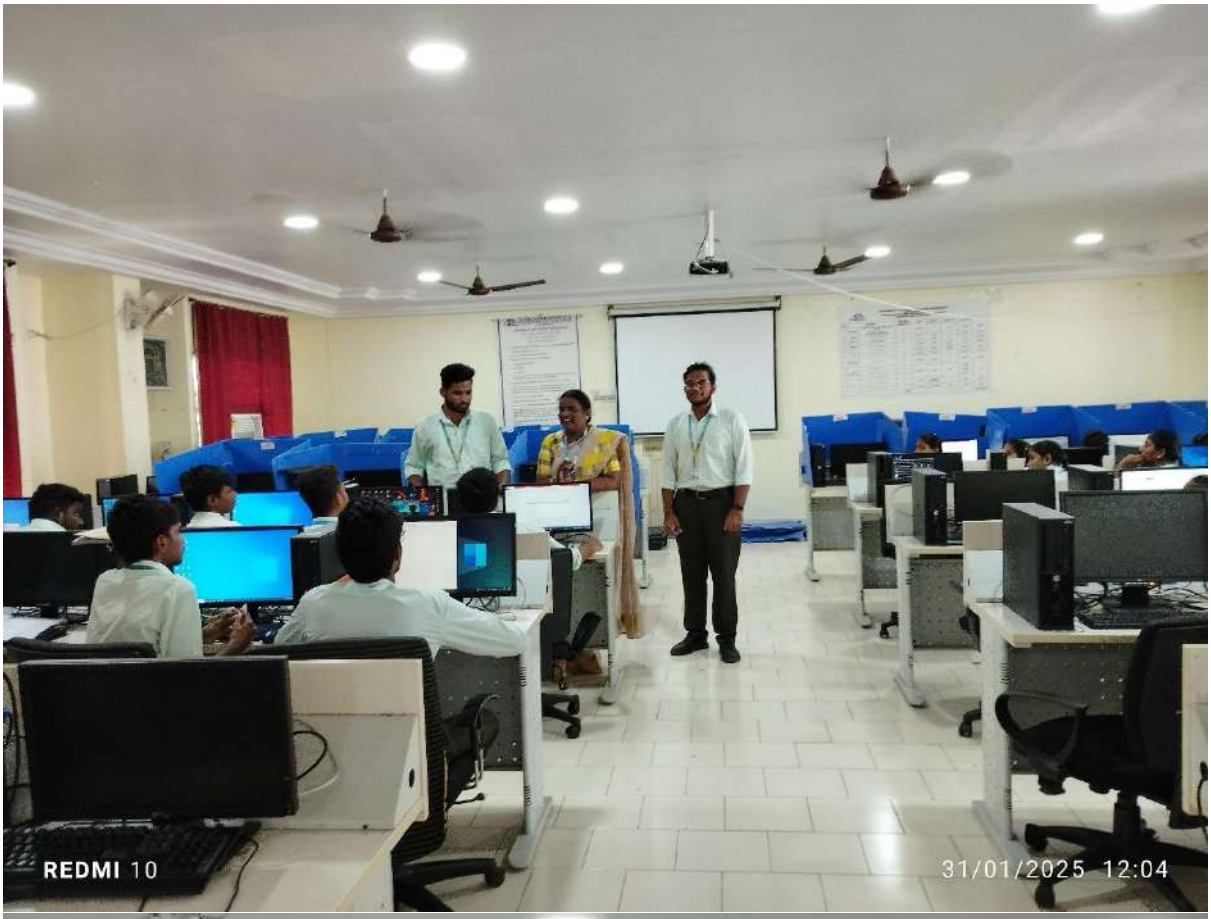
Students participated in the CODE-JAM FEST event



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Students Participated in the CODE KNIGHTERS Event

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Students Participated in the Code-a-thon Event

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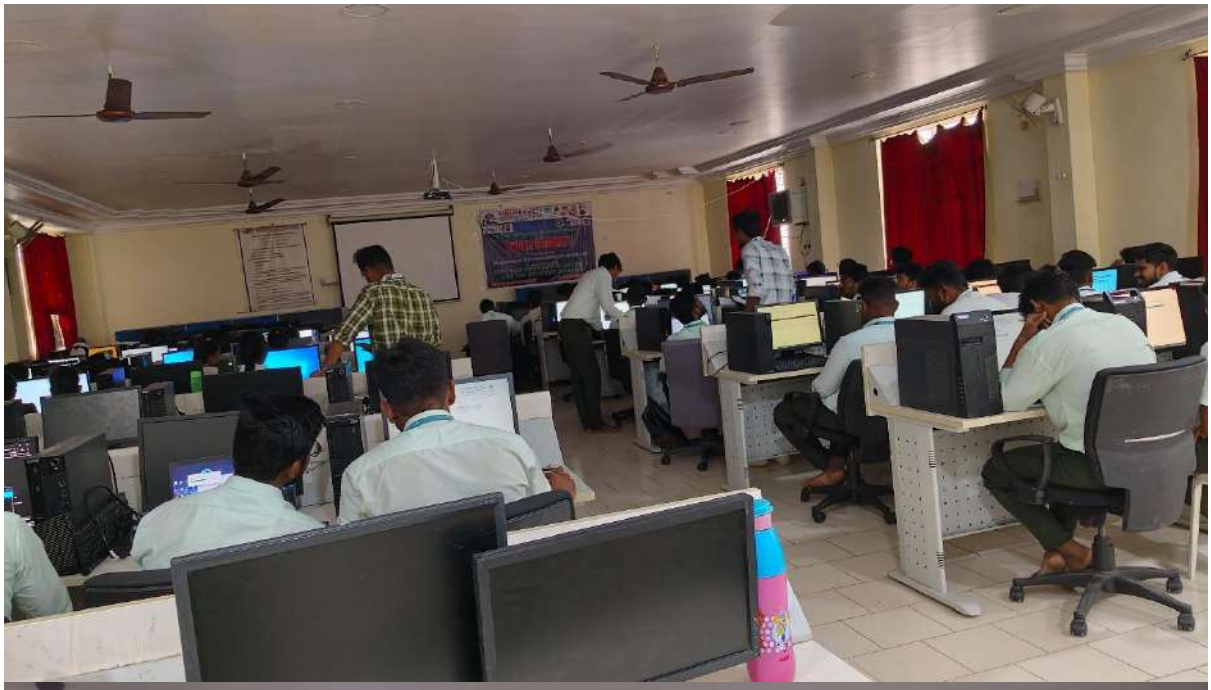
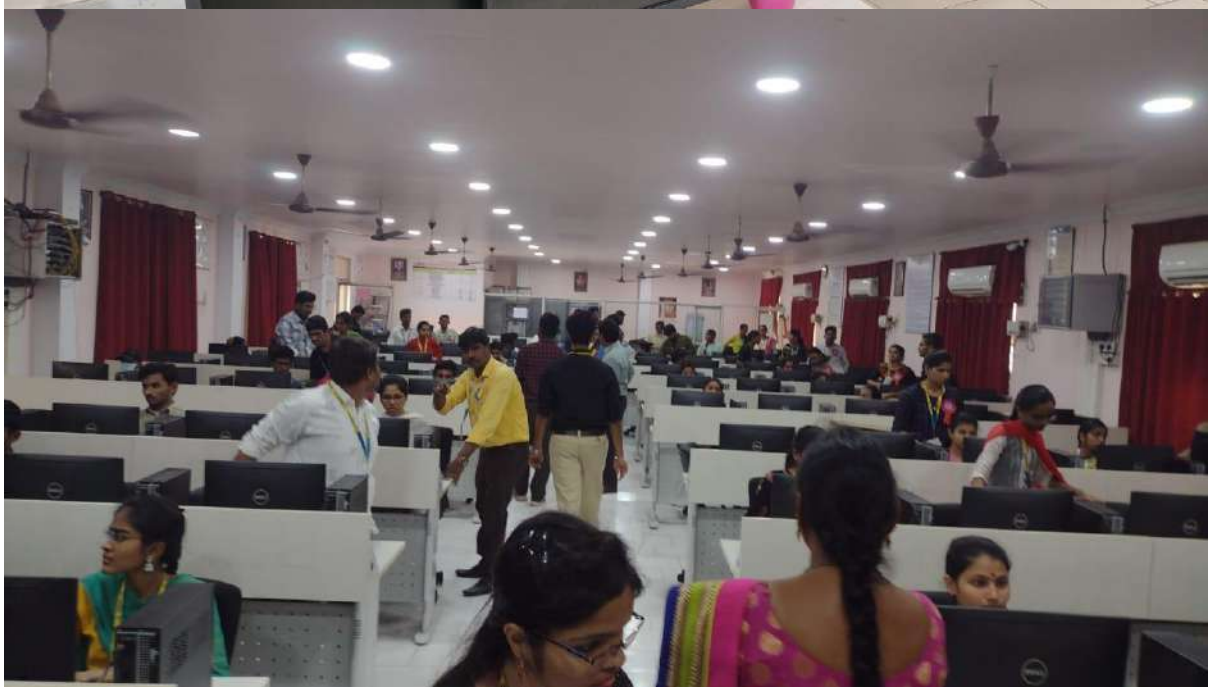
Students participated in the A CONFERENCE PAPER Event





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Students participated in the PAPER NOVA Event

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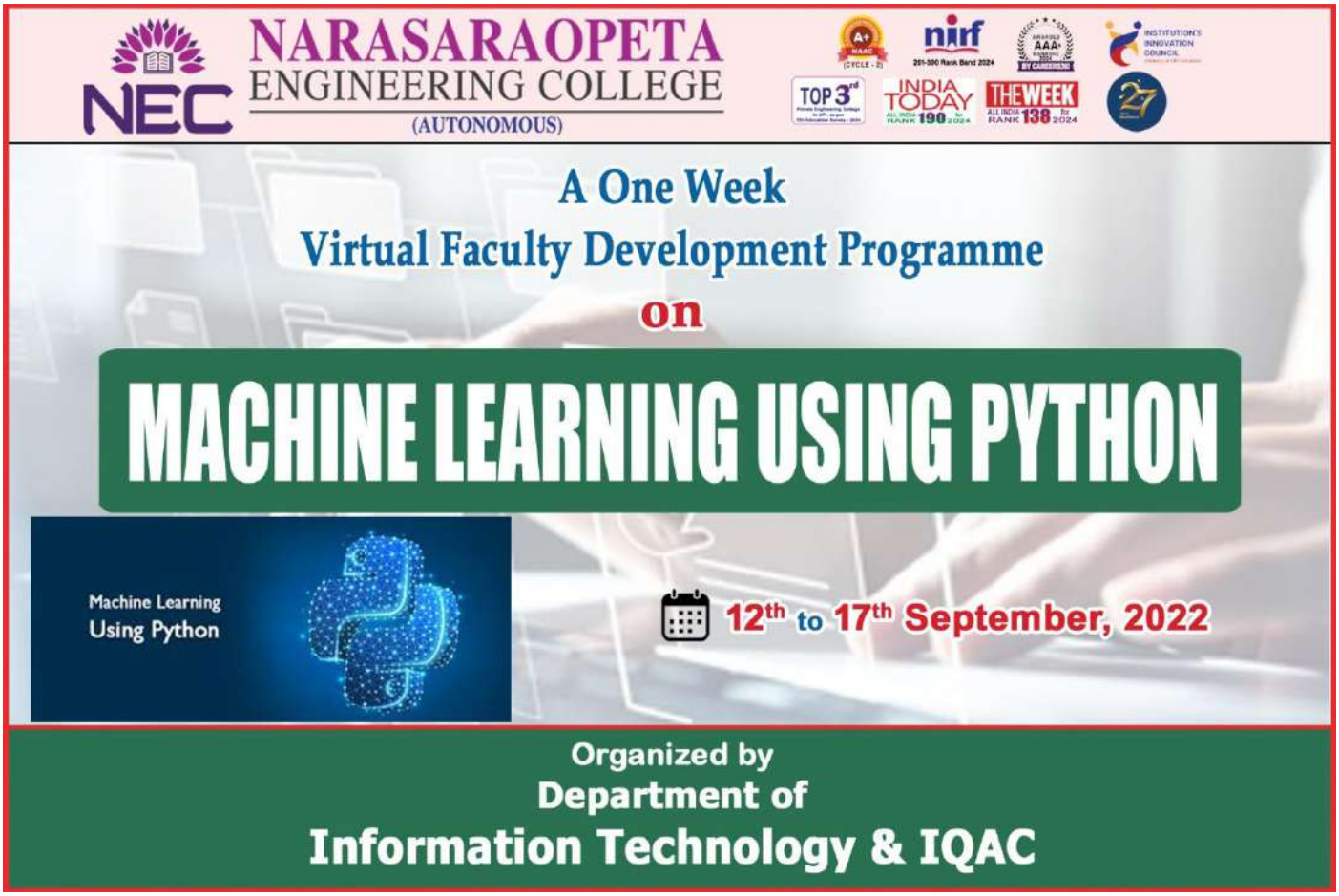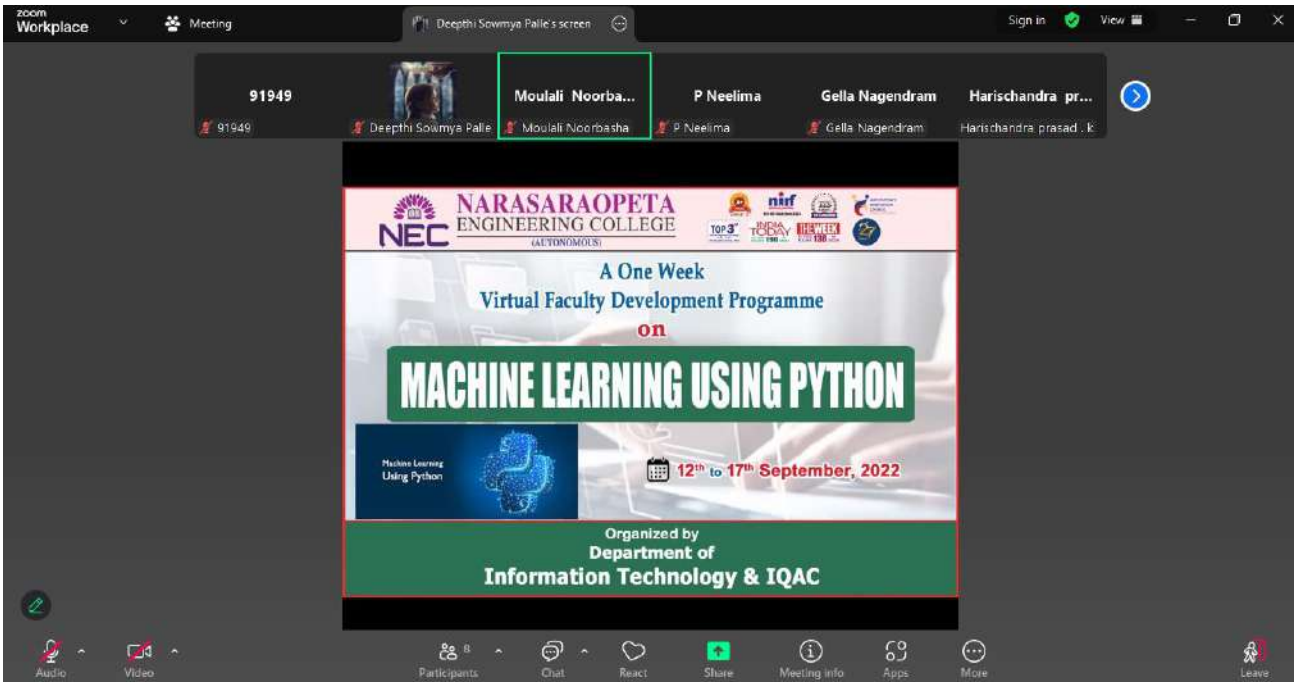
FDP: A Six Days Virtual Faculty Development Program on Machine Learning using Python