

## **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**

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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 being extended 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 information and 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.

**NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET (AUTONOMOUS)  
DEPARTMENT OF IT & CSE (AI)**

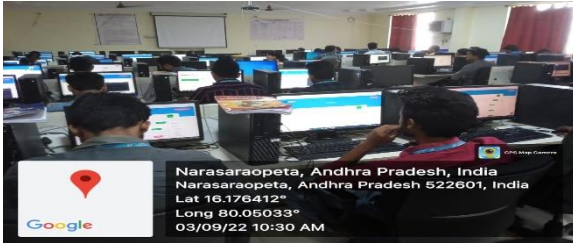
7. Venkata Manhoar, Assistant professor, IT-Dept has participated in one week Faculty Development Program on Managerial Skills for Technical Teachers and Administrators Conducted by Educational Management Department from 26-09-2022 to 30-09-2022.

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



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

**DEPARTMENTAL ACTIVITIES:**



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



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



Bytex1 CRT Training had conducted for II B.TECH I SEM OF IT students on 28-11-2022



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



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



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.

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



**STUDENT FOCUS:**

**Training Programs:**

S.no	Dept.	Year	Training	Duration
1	IT&AI	2-1	Bytexl	21-11-2022 to 26-11-22
2.	IT&AI	3-1	Tech Hub	03-09-2022 to 10-09-22
3	IT&AI	3-1	Hackthon	08-08-2022 to 08-08-22
4.	IT&AI	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
6.	Sk.Jabeen sultana	AI	Joy of computing using python	NPTEL
7.	T.Sai Vamsi	AI	Cloud computing	NPTEL
8	.D.Mahesh	AI	Cloud Computing	NPTEL
9.	B.Venkata Akhila	AI	Cloud Computing	NPTEL
10.	Sk.Nadeem	AI	Cloud Computing	NPTEL

**CO CIRCULAR ACTIVITIES (SPORTS):**

S.no	Dept	Year	Event	Prize
1	IT&AI	3 <sup>rd</sup> & 4 <sup>th</sup>	Cricket	Winners
2	IT&AI	3 <sup>rd</sup> & 4 <sup>th</sup>	Cricket	Runners
3	AI	3 <sup>rd</sup>	Hackthon	1 <sup>st</sup>
4.	AI	3 <sup>rd</sup>	Hackthon	2 <sup>nd</sup>
5.	AI	3 <sup>rd</sup>	Full Stack Web Development	2 <sup>nd</sup>
6.	AI	2 <sup>nd</sup>	Innovation Day Competitions	2 <sup>nd</sup>
7.	AI	3 <sup>rd</sup>	Photography Competitions	3 <sup>rd</sup>

**NSS ACTIVITIES:**



Information Technology department students were participated in "75<sup>th</sup> Azadi Ka Amrit Mahotsav Har Ghar Tiranga Palandu Zilla Jatiya Pataka Shoba Yatra", as a part of NSS activity on 10/08/2022 at S.S & N College Narasaraopet.

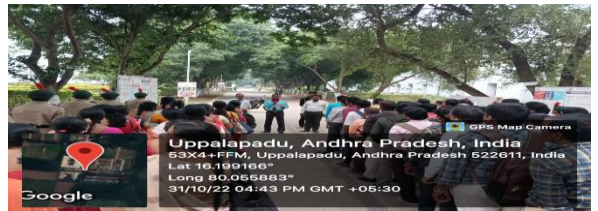


Information Technology department students were participated in "Painting and Essay Writing Competition on the eve of Azadi Ka Amrit Mahotsav", as a part of NSS activity on 11/08/2022.



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.

**NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET (AUTONOMOUS)  
DEPARTMENT OF IT & CSE (AI)**

**CAMPUS PLACEMENTS:**

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

HT No.	Name of the Student	Select ed comp any name	Date of recruit ment	Annual Package
19471A1204	ATTHULURI VISHNU	MU SIGM A	AUG 02	5.0 LAKH
19471A1207	BHNAU PRAKASH CHEKKA	PRO LIFIC S	AUG 16	4.0 LPA
19471A1209	BUSI HARIKA	NEE BAL	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	AMD OCS	SEP 20	5.23 LPA
19471A1223	KALERAO SRAVANI	HCL	AUG 26	4.25 LPA
19471A1227	KONDA VENKATES WARA REDDY	HCL	AUG 26	4.25 LPA
19471A1229	KOTHAMAS U MOHAN AJAY KUMAR	APPS ASS OCIA TE	NOV 20	6.0LPA
19471A1232	MADDULA ROOPESH REDDY	TEC H MAH INDR A	NOV 9	3.25LPA
19471A1234	MAJETI VENKATA SASI KUMAR	TCS	NOV 24	3.36
19471A1248	ABDUL RAFI SHAIK	SAV ANTI S	SEP 9TH	3.25LPA
19471A1258	SYED SUHANA	TCS	NOV 24	3.6LPA
19471A1260	LAKSHMI SAI LIKITHA VELAVART HIPATI	TEC H MAH INDR A	NOV 9	3.25LPA

**Academic Toppers**

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

