

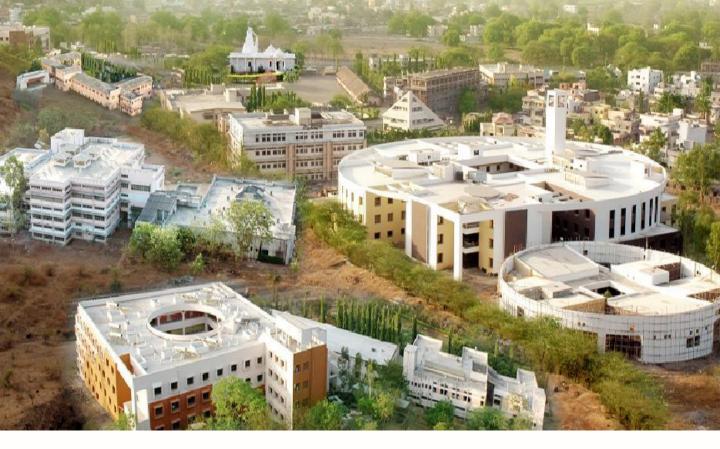
VOL-7 ISSUE-2



**DEPARTMENT OF COMPUTER ENGINEERING** 

**SEMESTER-II** 

**ACADEMIC YEAR 2021-22** 



### STUDENT COMMITTEE COORDINATOR

BABHALE SHARVARI BE COMPUTER

JAYASHRI PENDHARI BE COMPUTER

KOTECHA PRACHI TE COMPUTER

THAKUR MAYUR

TE COMPUTER

VYAS SAKSHI SE COMPUER MOHIT JAIN SE COMPUTER

### FACULTY COORDINATOR

Dr. M. R. SANGHAVI CHIEF EDITOR

PROF. K. M. SANGHAVI EDITOR (I/C)

PROF. R. R. BHANDARI ASSOCIATE EDITOR







#### SNJB's

Late Sau. Kantabai Bhavarlalji Jain College of Engineering



#### VISION

Transform young aspirant learners towards creativity and professionalism for societal growth through quality technical education.

#### **MISSION**

- To share values, ideas, beliefs by encouraging faculties and students for welfare of society.
- To acquire the environment of learning to bridge the gap between industry and academics.
- To enhance diverse career opportunities among students for building nation.
- To transfer the suitable technology particularly for rural development.



|| गुरुकुल संस्कार एवम् आधुनिक शिक्षा ||

usigned By: Mr. Juneid Sheli

### SNJB's



Late Sau. Kantabai Bhavarlalji Jain College of Engineering (Jain Gurukai) Nemingar, Chandwad, Dist. Nashik (MS)



**Department of Computer Engineering** 

#### VISION

To empower young generations for significant contribution in the field of computer engineering through excellence in knowledge, technical education and innovation to cater the industrial demands and societal needs.

#### **MISSION**

- To achieve academic excellence by inculcating basic and latest knowledge in which new idea flourish.
- To undertake collaborative training which offer opportunities for long term interaction with academia and industry.



||गुरुकुल संस्कार एवम् आधुनिक शिक्षा ||



### **SOURCE OF INSPRIATION**



SHRI.DINESHKUMARJI LODHA



SHRI. ZUMBARLALJI BHANDARI



SHRI. SUNILJI CHOPDA

# DIRECTORS OF COLLEGE OF ENGINEERING SOURCE OF MOTIVATION



DR. M. D. KOKATE PRINCIPAL



DR. M. R. SANGHAVI VICE-PRINCIPAL



### FROM HEAD OF DEPARTMENT CORNER



#### DR. M. R. SANGHAVI

It gives me great satisfaction to welcome you all on behalf of the entire Computer engineering department.

Happy to share the release of **Computer Buzz**, Vol-7 Issue-2. Dedication, Devotion and Determination are keys to success in any endeavor. With the due respect Department of Computer Engineering believe in the philosophy of "Learning by Doing".

It is heartening to see the transformational programs of our government such as Digital India, Skill India, Stand-Up India .In the same context our department has adopted the practical solutions based on 'Digital Theme'.

This magazine is intended to bring out the hidden literary talents in the students and teachers to inculcate strong technical skills among them. I congratulate and thank all the students and faculty coordinator who have made untiring efforts to bring out this magazine. I wish them all the very best for releasing more such magazines in future.



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# **EVENTS**

SR NO	NAME OF EVENT	DATE OF CONDUCTION	RESOURCE PERSON	EVENT COORDINATOR
1	Lab Model Design Competition	21/2/2022	SE TE BE Students	S B Ambhore and A. J. Shakadwipi
2	Session on IITs and NITs	21/2/2022, 23/2/2022	D.R. Agarwal, D.P. Pawar, N.S. Khairnar, N.P. Bora, S.V. Sinha, M.D. Kawade	Dr. M.R. Sanghavi
3	Research/FDP/Workshop Funding Opportunities from Private Sector and Government	26/2/2022	Mr. Nikhil Kulkarni	Dr. K.R. Nirmal
4	Webinar on Understanding Financial Markets and Recognizing Opportunities	28/2/2022	Mr. Sujoy Das	K.M. Sanghavi
5	Application of AI and ML and its opportunities in Industries	11/3/2022	Dr. Parag Kulkarni	S.A. Chavan
6	Latest trends (Front End, Back End, Deployment, Framework) & Career Options & Opportunities	12/3/2022	Mr. Swapnil Aherrao (Alumni)	Prof. B. A. Khivsara & Prof. A. R. Brahmecha
7	Data Science using R and Python Programming	28 - 30 March 2022	Mr. Tushar B. Kute	Dr. Khyati R. Nirmal
8	Digital and Social Media Marketing	9/4/22	Mr. Vikas Gadiya	Mrs. N. P. Bora



# **EVENTS**

Sr No	Name of Event	Date of Conduction	Resource Person	Event Coordinator	
9	Hands on Version Control with Git	9/4/22	Mr. Mokshesh Dafariya	Dr. Mahesh R. Sanghavi	
10	How to host website Freely	10/4/2022	Mr. Junaid Khaikh	Prof. B. A. Khivsara	
11	How to host website Freely	10/4/2022	Mr. Junaid Khaikh	Prof. B. A. Khivsara	
12	Session on difference between US and Indian Education System and Career Opportunities in US	12/4/2022	Me. Dharmesh Desai	Mr. R. R. Bhandari	
13	Campus Recruitment Training by Aptitech Education for TE Computer	11/4/2022 to 25/4/2022	Samidha Bhagel	Prof. P.A.Kapse/ Prof. G.P. Dhomse	
14	Ingredients for Successful Engineering Career	27/4/2022	Dr. R.G. Tathed	S.V. Sinha	
15	Android App Development Using Java	2/5/2022	Mr. A.R. Bramhecha	Prof. M.D. Kawade and Prof. K.M. Sanghavi	
16	Planning and Real time Application of Al	2/5/2022	Dr. Darshan V. Medhane	Neha P. Bora, Nilam S. Khairnar	
17	Research Publications How and Why , Research Funding Schemes	21/5/2022	Dr. Manesh B Kokre	Dr. K.R. Nirmal, K.M. Sanghavi	























Maharashtra 423101, India

Latitude 20.3352241° Local 11:05:10 AM GMT 05:35:10 AM

Longitude 74.2367117°

Altitude 671.6 meters Monday, 30-05-2022







Late Sau. K. B. Jain College of Engineering
Department of Computer Engineering
in Association with CSI Student Chapter
Organises

One-Day session on Research/FDP/Workshop funding
opportunities from Government
and Private sector

CEng. Nikhil Lilakar Kulkarni Incubation Manager KBCNMU Centre of Innovation, Incubation amd Linkages, Jalgaon Day: Saturday Date :26th February 2022

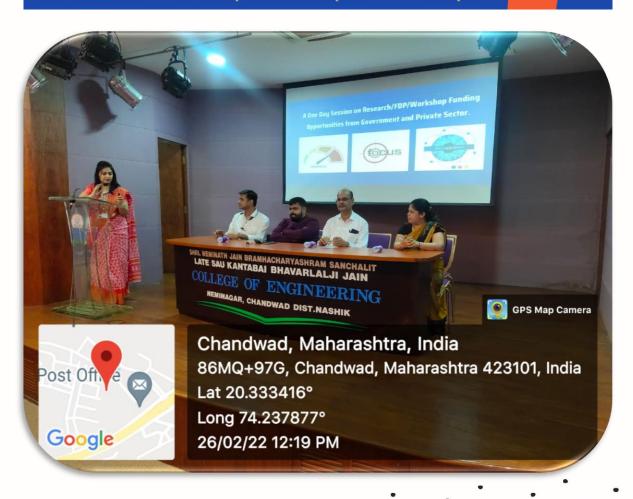
Time: 12 Noon

Regards

1 SAMESTER | 1 SAM

Dr.K. R. Nirmal Dr. M. R. Sanghavi
Event Coordinator Vice-Principal & HOD (Comp/IT)

Dr. M. D. Kokate Principal







SNJB's

### Late Sau. K. B. Jain College of Engineering

Department of Computer Engineering

Organises

Expert Session on Topic:

Effective Research Paper Writing and Funding Schemes



Time: 10.00 AM

### Dr. Manesh B. Kokare

Ph.D IIT Kharapur Post-Doctorate University of California, USA

Prof. K. M. Sanghavi Dr.K. R. Nirmal Event Coordinator Regards Dr. M. R. Sanghavi Vice-Principal & HOD (Comp/IT)

Dr. M. D. Kokate Principal



### STUDENT'S ACHIEVEMENT







### STUDENT'S ACHIEVEMENT







### STUDENT'S ACHIEVEMENT







### STUDENT'S ACHIEVE



#### Elite

### EL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to

#### SHARMA SAGAR GANESH

for successfully completing the course

#### **Programming In Java**

with a consolidated score of

Programming Exam

25/25

%

Proctored Exam

27/50

Total number of candidates certified in this course: 4814



Prof. Jayanta Mukhopadhyay Dean Outreach IIT Kharagpur

Jan-Apr 2022 (12 week course) Prof. Debjani Chakraborty

Coordinator, NPTEL IIT Kharagpur



Indian Institute of Technology Kharagpur

Online Assignments 24.91/25

To validate and check scores: https://nptel.ac.in/noc





### STUDENT'S PUBLICATION

Sr. No	Name of Student	Guide Name	Date of Publication	Title of Paper	Name of Conference/Journa l
1	Lokesh Pincha Rahul Battin Nayan Patodi	Guide: Prof. B. A. Khivsara	May 2022	A Review Paper on Tiffin Cart	International Research Journal of Engineering and Technology (IRJET)  Volume: 09 Issue: 05
2	Pamul Mishra Himanshu Shah Pratiksha Gaikhe kajal Dagade	Guide: Prof. N. P. Bora	May 2022	College Online Education System	International Research Journal of Engineering and Technology (IRJET)  Volume: 09 Issue: 05
3	A Review Paper on Smart Tourism Guide	Guide: Prof. B. A. Khivsara	May 2022	A Review Paper on Smart Tourism Guide	IRJMETS, e-ISSN: 2582-5208, Volume:04/Issue: 05/May-2022







# Faculty Interaction Outside World

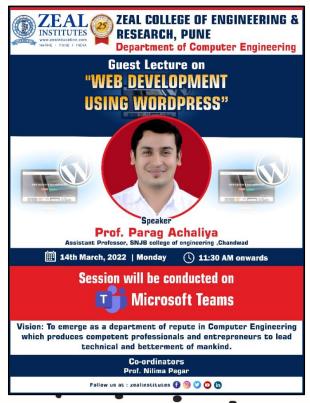
Sr.	-			Name of College/	
No	Name	Date	Topic Name	Institute/Any other	
1	Dr. M.R. Sanghavi	12/7/2021	Digital Transformation	Srivenkateshwaraa College of Engineering & Technology, Ariyur, Puduchery	
2	Dr. M.R. Sanghavi	25/8/2021	Operating Systems	K. K.Wagh Institute of Engineering Education and Research, Nashik	
3	Dr. M.R. Sanghavi	13/9/2021	Digital Transformation	AISSMS IOIT, Pune	
4	Dr. M.R. Sanghavi	25/10/2021	Blog Creation using WordPress	Students & Faculties of SIEM CoE, Nashik	
5	Dr. M.R. Sanghavi	9/12/2021	Effective Tools for Teachers	Dr. Panjabrao Deshmukh Polytechnic, Amravati, Maharashtra. of Polytechnic	
6	Dr. K.R.Nirmal	29/11/2021	One Day Hands on Workshop on LaTex	Late G.N.Sapkal College of Engineering, Anjaneri, Nashik	
7	Dr. K.R.Nirmal	3/12/2021	"LaTeX :Report writing tool, Overleaf"	NDMVP's KBT College of Engineering, Nashik	
28	Bhavana A. Khivsara	23- 24/11/2021	Classification Techniques	Dr. D.Y. Patil COE, Pune	
9	Bhavana A. Khivsara	06/12/2021	Advanced Analytics Tools & Techniques	AVCOE, Sangamner	
10	Bhandari Rajiv R.	16/10/2021	Recent Trends in IoT	SIEM Nashik	
11	Bhandari Rajiv R	11/11/2021	Hands on session on Wordpress Blog	AMT Skill Enhancement Institute, Nashik	
12	Bhandari Rajiv R	27/12/2021	One Day Workshop on Open Source Computer Networking Tool	Matoshri College of Engineering & Research Centre, Nashik	
13	Rajnor Dnyaneshwar S	27/09/2021	Message passing interface in High Performance Computing	Zeal Education Society's, Zeal College of Engineering & Research, Pune.	
14	Dhomse Ghanshyam P.	30/11/2021	Cucumber BDD Framework	NDMVP College Of Engineering Nashik	
15	Dhomse Ghanshyam P.	18/11/2021	Googling Google	AMT Skill Enhancement Institute, Nashik	
16	Madhuri D. Kawade	2/12/2021	Google Doc	AMT Skill Enhancement Institute, Nashik	
17	Nilam S. Khairnar	29/10/2021	"Understanding Polymorphism using C+ <b>+</b> "	ZEAL COE Narhe Pune	



## Faculty Interaction Outside World









# STAFF ACHIEVMENTS



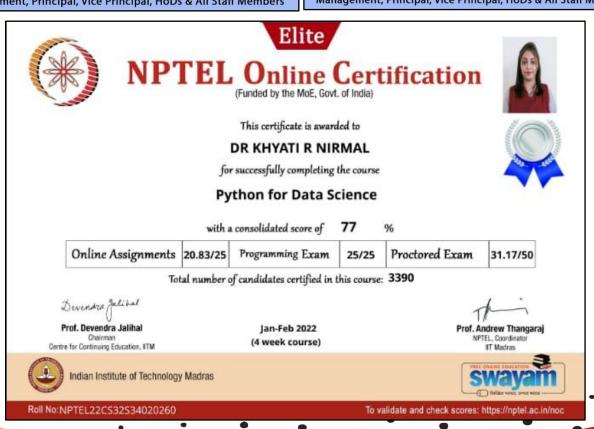




# STAFF ACHIEVMENTS









### **STAFF PATENT**

Dr. Khyati R Nirmal has published Patent on
Artificial Intelligent and Open CV based intelligent Bird
Journeys Tracking and migration forecasts in real-time
using Python Language
dated on 28/1/2022 with Application No:

202241002106A





### Industrial Visit



Industrial Visit to Netwin Infosolutions Pvt Limited Nashik dated on 27/4/2022



### Internship by Students



Sumago Infotech Nashik

**UK Vally Nashik** 





### Internship



R3 Infosystem, Nashik

### Sumago Infotech Nashik





## **PLACEMENTS**

Sr.No	Name of Student	Company Name	Designation	Package (LPA)
1	SHINDE SWATI DIPAK	TCS	System Engineer	7.01
		TCS	System Engineer	3.36
		WIPRO	Project Engineer	3.5
2	CHAVAN GAURAV VIJAY	Hexaware	<b>Graduate Engineer</b>	4
		Technologies	Trainee	4
		Infosys	System Engineer	3.6
		TCS	System Engineer	3.36
3	GADE MAYURI DINKAR	WIPRO	Project Engineer	3.5
	GADL MATORI DINKAR	Hexaware	<b>Graduate Engineer</b>	4
		Technologies	Trainee	7
		TCS	System Engineer	3.36
4	KATARIYA ARTI SURESH	Capgemini	Analyst	4
1	MITHUIT MITT SOILLSIT	Hexaware	<b>Graduate Engineer</b>	4
		Technologies	Trainee	-
5	LOHADE RUTIK RAVINDRA	TCS	System Engineer	3.36
6	MUNOT MRUNAL RISHABH	TCS	System Engineer	3.36
	MONOT MIKONAL KISHADH	ZENSAR	Software Developer	4
7	CHUTTARMUTHA ANAND	TCS	System Engineer	3.36
′	SANJAY	Infosys	System Engineer	3.6
8	PATIL PRIYA SURESH	TCS	System Engineer	3.36
	TATTE I KITA SOKESII	Capgemini	Analyst	4
9	SHEWALE ASHVINI JEEVAN	TCS	System Engineer	3.36
	SHEWHEL HOHVINI JEEVINI	ZENSAR	Software Developer	4
		WIPRO	Project Engineer	3.5
10	PENDHARI JAYASHRI RAMESH	Capgemini	Analyst	4
		Infrasoft Technologies		5
		limited	Consultant	
11	SALUNKE NIKITA SANJAY	WIPRO	Project Engineer	3.5
12	SANT KARTIK SAHEBRAO	WIPRO	Project Engineer	3.5
12	JAN TARRETTA JANEBIATO	MindTree	Engineer	4
13	SIDDHANT PAHADE	WIPRO	Project Engineer	3.5
		WIPRO	Project Engineer	3.5
14	PAGARIYA SANDESH SUDHIR	ZENSAR	Software Developer	4
		Capgemini	Analyst	4
15	KELHE AKSHAY MOHAN	WIPRO	Project Engineer	3.5



## **PLACEMENTS**

Sr.No	Name of Student	Company Name	Designation	Package (LPA)
		WIPRO	Project Engineer	3.5
16	KELHE ROHAN MOHAN	Capgemini	Analyst	4
		Persistent	Software Engineer	4.71
17	SHELAR DARSHAN PRADIP	WIPRO	Project Engineer	3.5
18	AHER ARCHANA RAJARAM	WIPRO	Project Engineer	3.5
		WIPRO	Project Engineer	3.5
19	JADHAV SHUBHANGI RAJENDRA	Capgemini	Analyst	4
		Infrasoft Technologies limited	Trainee Associate Consultant	5
20	DADWAY F GWADWADY GANWY	WIPRO	Project Engineer	3.5
20	BABHALE SHARVARI SANJIV	ZENSAR	Software Developer	4
		ZENSAR	Software Developer	4
21	SAMKIT NITINRAJ KOTHARI	Hexaware Technologies	Graduate Engineer Trainee	4
		Infosys	System Engineer	3.6
22	WYAVHARE AKASH RAJENDRA	ZENSAR	Software Developer	4
23	RAJPUT SOURABHSINGH MAHENDRASINGH	ZENSAR	Software Developer	4
24	JAIN ESHA SANDEEP	WINJIT	Software Developer	4.3
24	JAIN ESHA SANDEEI	Capgemini	Analyst	4
		Jade Global	Software Developer	3.8
25	SHAH DHRUTI PARAS	Hexaware Technologies	Graduate Engineer Trainee	4
		Infosys	System Engineer	3.6
26	POOJA DEEPAK SANGHAVI	WIPRO	Project Engineer	3.5
		JARO	Graduate Trainee	6.6
27	MAWAL VRUSHALI NANDKUMAR	Quality Kiosk	Digital Qulaity Engineer	2.25
		Capgemini	Analyst	4
28	PATIL MAYUR VIJAY	Capgemini	Analyst	4
	•	MindTree	Engineer	4
29	JAIN MAMATA KISHOR	Capgemini Capgemini	Analyst Analyst	4 4
			Graduate Engineer	
30	CHHAJED NIHARIKA MAHAVIR	Hexaware Technologies	Trainee	4
		Infrasoft Technologies	Trainee Associate	5
		limited	Consultant	•
		•	•	•



## **PLACEMENTS**

Sr.No	Name of Student	Company Name	Designation	Package (LPA)
31	BHALGAT PRATHAMESH DHANESH	Capgemini	Analyst	4
		Infosys	System Engineer	3.6
32	LOKESH MAHAVEERCHAND PINCHA	Atos Syntel	Associate Consultant	3.4
		Infosys	System Engineer	
33	GANDHI RUSHABH ASHISH	Quality Kiosk	Digital Qulaity Engineer	2.25
		Infosys	System Engineer	3.6
34	SONAR SANJANA GOPAL	Aress	Trainee Software	4.5
			Engineer	
35	PATNI VIRTI MANISH	Infosys	System Engineer	3.6
36	GAIKHE PRATIKSHA EKNATH	Aress	Trainee Software	4.5
37	GANGURDE SAKSHI DATTU	Infosys	Engineer System Engineer	3.6



### R RECRUITER



# Capgemun









# ALUMNI CORNER



#### SNJB's

Late Sau. Kantabai Bhavarlalji Jain

#### **COLLEGE OF ENGINEERING**

Accredited with 'A' Grade by NAAC
(Jain Gurukul) Neminagar, Chandwad (423101), Dist: Nashik

**Department of Mechanical Engineering** 

# Gist of Data Science as a Demanding Career



#### Exper

Ms. Rachana Bumb

Data Scientist at Avery Dennison , San Jose, California USA



Date & Time: 5th May 2022, 09:45am to 11:30am



Join the Session with Meeting ID: 84080259976 Passcode: snjbcoe

Prof. P. M. Bora

Prof. S. U. Pati Co-ordinator Dr. S. D. Sancheti Head of Mechanical Dept. Dr. M. R. Sanghavi Vice-Principal Dr. M. D. Kokate Principal





### **ALUMNI CORNER**



Mr. Saurabh Kothari got admitted for MS Course in Brunel University London



### **ALUMNI CORNER**

Startup by Mr. Antriksh Sancheti (Alumni Computer)





# MEDIA AND COVERAGE

आपलं **महान**ार

### एसएनजेबी अभियांत्रिकीत विद्यार्थ्यांचे स्वागत

चांदवड । येथील श्री नेमिनाथ जैन ब्रह्मचर्याश्रम संचलित स्व. सौ. कांताबाई भवरलालजी जैन अभियांत्रिकी महाविद्यालयातील संगणक विभागातील स्पेस स्टुडंट असोसिएशन व सीएसआय नाशिक यांच्या संयुक्त विद्यमाने द्वितीय व तृतीय वर्षातील विद्यार्थ्यांसाठी स्वागत समारोहाचे आयोजन केले होते. यामध्ये अंतिम वर्षातील विद्यार्थ्यांनी तृतीय वर्षातील विद्यार्थ्यांचे व तृतीय वर्षातील विद्यार्थ्यांनी द्वितीय वर्षातील विद्यार्थ्यांचे स्वागत केले. कार्यक्रमाचे आयोजन स्पेसचे प्रमुख प्रा. संतोष अंभोरे व प्रा. अमोल शाकद्वीपी यांनी संगणक विभाग प्रमुख व उपप्राचार्य डॉ. महेश संघवी, प्राचार्य डॉ. एम.डी. कोकाटे यांच्या मार्गदर्शनाखाली केले. कार्यक्रमाचे यशस्वी आयोजन केल्याबद्दल संस्थेच्या विश्वस्त समितीचे अध्यक्ष बेबीलाल संचेती, विश्वस्त समितीचे उपाध्यक्ष व महाविद्यालयाचे समन्वयक दिनेशकुमार लोढा, सेक्रेटरी जवाहरलाल आबड, प्रबंध समितीचे अध्यक्ष अजितकुमार सुराणा, उपाध्यक्ष अरविंदकुमार भन्साळी, समन्वयक झुंबरलाल भंडारी, सुनीलकुमार चोपडा आर्दीनी अभिनंदन केले.

Nashik Edition Mar 13, 2022 Page No. Powered by : eReleGo.com आपलंगहानम् 🗥 वहानम् ...

### QUICK ज्यूज



### प्रा. नेहा बोरा यांना उत्कृष्ट शिक्षक पुरस्कार

चांदवड । येथील स्व. सौ. कांताबाई भवरलालजी जैन अभियांत्रिकी महाविद्यालयातील संगणक विभागातील प्रा. नेहा प्रद्युत्र बोरा यांना इंडियन असोसिएशन ऑफ एज्यकेशन प्रोफेशनल्स या संस्थेद्वारे शैक्षणिक क्षेत्रात भरीव कामगिरी केल्याबद्दल सर्वोत्कृष्ट शिक्षक पुरस्कार प्रदान करून सन्मानित करण्यात आले. त्यांच्या या यशाबद्दल विश्वस्त समितीचे अध्यक्ष बेबीलाल संचेती, उपाध्यक्ष व महाविद्यालयाचे समन्वयक दिनेशकुमार लोढा, सेक्रेटरी जवाहरलाल आबड, प्रबंध समिती अध्यक्ष अजितकुमार सुराणा, उपाध्यक्ष अरविंदकुमार भन्साळी, समन्वयक झुंबरलाल भंडारी, सुनीलकुमार चोपडा, प्राचार्य डॉ. एम.डी. कोकाटे, उपप्राचार्य डॉ. एम. आर. संघवी, सर्व विभाग प्रमुख प्राध्यापक, शिक्षक-शिक्षकेतर कर्मचारी व विद्यार्थी - विद्यार्थिनींनी प्रा. नेहा बोरा त पाचेन्स्य स्थिता

स्यतंत्र स्यतंत्र वृत्तपत्र

# निर्धिक जिल्हा

नाशिक. बधवार, १ जुन २०२२ | ज्येष्ठ शु. २, शके १९४४

### चांदवड अभियांत्रिकीत प्राध्यापकांसाठी व्याख्यान

चांदवड । येथील एसएनजेबी संचालित स्व. कांताबाई भवरलालजी जैन अभियांत्रिकी महाविद्यालयातील संगणक विभागातर्फे प्राध्यापकांसाठी 'प्रभावी संशोधन लेखन व संशोधन निधी योजना' या विषयावर एकदिवसीय व्याख्यानाचे आयोजन करण्यात आले होते. शिक्षणामध्ये लवचिकता आणण्यासाठी नवीन राष्ट्रीय शैक्षणिक धोरण मंजुर करण्यात आलेले आहे. यात संशोधनाला जास्त वाव देण्यात

आलेला आहे. त्या अनुषंगाने प्राध्यापकांना प्रशिक्षण देण्यासाठी या व्याख्यानाचे आयोजन करण्यात आल्याचे याविषयी माहिती देताना प्राचार्य डॉ. कोकाटे यांनी सांगितले. यावेळी डॉ. मनीष कोकरे यांनी

शैक्षणिक तांत्रिक लेखन कौशल्य वाढविणे, संशोधनाची नैतिकता समजून घेणे याविषयी प्राध्यापकांना मार्गदर्शन केले. कार्यक्रमाचे संयोजन डॉ. ख्याती निर्मल व प्रा. के. एम. संघवी यांनी केले.



#### **ARTICLE ON**

### ARTIFICIAL INTELLIGENCE IN CYBER SECURITY - SAGAR SHARMA, TE-COMP B, SNJB'S COE, CHANDWAD

Living during a digital world with tremendous advancement in the world of technology is at a very high level where every single device is connected to the internet with the internet of things (i.e. IoT). Since technology is reaching a high-level day by day, issues associated with cyber security are also increasing, becoming one among the biggest factors to be worried about. People are becoming digital citizens and are being more connected to the internet than ever, which is leading to security attacks, breaches in security and plenty more threats in cyberspace that are becoming more and more difficult to handle by humans alone, there's a need for protection from these cyber threats and to be secured. This article will introduce how the problems of cyber security can be efficiently resolved using the strategies involving Al.

Today artificial intelligence has already entered fields like Industries, Hospitals and Medicines, Aviation Human Resources, Government, Marketing, media, E-commerce, Gaming and Cyber security which may be a need in today's digital world. Al is heavily utilised in robotics. Advanced robotic arm and other industrial robots, widely utilised in modern factories, can learn from experience the way to move efficiently despite the presence of friction and gear slippage. Not just the corporates but also the govt sectors are also trying to master AI and Machine Learning for the protection of data and creating more opportunities in the respective field. The thought of creating and using artificial intelligence is to make human lives easier. Development of AI has begun with the intention of developing Intelligence in machines similar to that of humans.





Al allows you to automate the detection of threat and which is completed without any involvement of the humans. With the advancements in Al, many companies have begun to use it as a powerful weapon against cyber-attacks and breaches. Numerous computing methods of Al like Computational Intelligence, Neural Networks, Machine Learning, data processing, Pattern Recognition, symbolic logic, Heuristics, Artificial Immune Systems Intelligent Agents etc. are increasingly playing an important role in cyber-crime detection and security.

#### METHODS/TECHNIQUES USED OF AI IN CYBER SECURITY



Methods used of AI in Cyber

#### **EXPERT SYSTEMS**

An Expert System basically refers to a computing system that replicates the decision-making ability of a human being. Expert system may be a popular Al tool which is a best example of a knowledge-based system. It can be shortly introduced as programming for discovering answers to inquiries in some application area displayed either by user or by another product. The safety expert systems precisely follow a set of protocols to battle cyber threats.

#### **NEURAL NETS**

Neural Nets are a complicated part of Artificial Intelligence. It's also said to be deep learning. Neural nets or artificial neural networks are inspired from biological neural networks or functions and dealing of the human brain. The human brain features a large number of neurons, which are to an excellent extent general purpose and independent of domain, they will take in any kind of information. In 1957 Frank Rosenblatt created a man-made neuron (Perceptron) which introduced the concept of neural networks. Once we practically apply this deep learning or neural nets into cyber security, the system can identify whether a file is malicious or legitimate without human interference. This reduces human efforts.



#### INTELLIGENT AGENTS

Intelligent agent may be a system that perceives its environment and takes actions to maximize its chances of success. Computer Agents (software or hardware) are designed to perform operations computationally demanding tasks like information filtering, classification, pattern/trend analysis then on. Intelligent agents can collect data, analyze it and perform harder tasks where machines need to sense human intentions and decoding crucial information. In the future, this sort of system can help law enforcement in detecting and eliminating cyber threats, abuse, spam.

#### **CONCLUSION**

Artificial intelligence will help us in reducing cyber threats and the chance of reaching accuracy with a greater degree of precision is a possibility. Detecting complex security incidents is going to be easier without involvement of humans which will reduce human efforts. In future, we may have the cleverest frameworks using these AI methods. AI is going to be considered as a silver bullet to fight against cyber-crimes which will ease administration.

- SAGAR GANESH SHARMA

TE COMPUTER

