April-June 2022

CLAIRVOYANCE

E-NEWSLETTER OF IT DEPARTMENT

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Editorial Board

- Dr. Akhilesh Tiwari, Prof. & Head of Department
- Dr. Saumil Maheshwari
- Prof. Namrata Agrawal

Students

- Sakshi Talreja (0901IT191052)

Contents

Award/Prize/Recognition Received by Faculty Members

- Dr. Bhagat Singh Raghuwanshi recognized as NPTEL believer (NPTEL STAR Award) in session Jan-June 2022.

- Dr. Dhananjay Bisen recognized as NPTEL believer (NPTEL STAR Award) in session Jan-June 2022.

- Prof. Namrata Agrawal received certificate of appreciation in recognition of role as mentor for the NPTEL online certification course of "Online Privacy".

- Dr. Dhananjay Bisen received certificate of appreciation in recognition of role as mentor for the NPTEL online certification course of "Advance Graph Theory".

NPTEL/ATAL/COURSERA/INTERNSHALA

- Dr. Saumil Maheshwari successfully completed the certification course (with elite) on **Intellectual Property Right , Design and Analysis of Algorithms** through Swayam/NPTEL platform.

- Prof. Abhishek Dixit successfully completed the certification course (with elite) on **Design and Analysis of Algorithms , Intellectual Property Rights** through Swayam/NPTEL platform.

If you want to shine like a sun, first burn like a sun.
-A.P.J. Abdul Kalam

- Dr. Dhananjay Bisen successfully completed (with ELITE) the course "**Introduction to Internet of Things, Python for Data Science, Data Base Management System, Compiler Design, Introduction to Industry IOT, Fundamental algorithm: Design and Analysis**" offered by NPTEL in session Jan-June 2022.

- Dr. Bhagat Singh Raghuwanshi successfully completed (with elite) the course "**Python for Data Science, DataBase Management System, Compiler Design, Computer Network and Protocols**," offered by NPTEL in session Jan-June 2022.

Book Chapter/Books Published with DOI number

- Amit Kumar Mishra , Vikram Rajpoot , Ramakant Bhardwaj , Pankaj Kumar Mishra and Pushpendra Dwivedi A Fuzzy-GA for Predicting Terrorist Networks in Social Media Dark Web Pattern Recognition and Crime Analysis Using Machine Intelligence in IGI Global with DOI: 10.4018/978-1-6684-3942-5.ch010

Publications SCI/UGC/SCOPUS with DOI number

- Prakash Chandra Sharma, Rohit Raja, Santosh Kumar Vishwakarma, Sanjiv Sharma, Pankaj Kumar Mishra & Vivek Singh Kushwah , "Analysis of brain signal processing and real-time EEG signal enhancement", Springer Multimedia Tools Application, ISSN: 1573-7721, Volume 81,16 May 2022(SCI Journal), Impact Factor: 2.757.

- Devendra Kumar Mishra, Kushal Johari ,Shivangi Ghildiyal, Arvind Kumar Upadhyay, and Sanjiv Sharma, “A Novel Approach in Business Intelligence for Big Data Analytics Using an Unsupervised Technique”, IOP ECS Transaction, ISSN: 1938-5862, Vol 107 (1), April 2022. ((SCOPUS Index)

- Devendra Kumar Mishra, Jitendra Kumar, Jitendra Kumar Chaudhary, Dr. Arvind Kumar Upadhyay and Sanjiv Sharma, “Role of Text Mining to Enhance the Quality of Product Using an Unsupervised Machine Learning Approach”, IOP ECS Transaction, ISSN: 1938-5862, Vol 107 (1), Aprl 2022. (SCOPUS Index)

- Bhagat Singh Raghuwanshi, Akansha Mangal, Sanyam Shukla, “Universum based kernelized weighted extreme learning machine for imbalanced datasets” International Journal of Machine Learning and Cybernetics, pp. 1-21, July 2022 (SCI Index with I.F. 4.38) DOI: https://doi.org/10.1007/s13042-022-01601-y

- Jyoti Kumari and Sanjiv Sharma, “A Movie Recommendation System Based on A Convolutional Neural Network”, International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538 Volume 9 Issue XII Dec 2021

- Vikram Rajpoot , Rahul Dubey, Safdar Sardar Khan, Saumil Maheshwari,Abhishek Dixit, Arpit Deo, Nikita Vats Dohan Orchard Boumans Algorithm and MRF Approach Based on Full Threshold Segmentation for Dental X-Ray Images, Traitement Du Signal Page: 737-744 DOI: https://doi.org/10.18280/ts.390239 .

- Dhananjay Bisen, Rishabh Shukla, Narendra Rajpoot, Praphull Maurya, Atul Kr. Uttam & Siddhartha kr. Arjaria, Responsive human-computer interaction model based on recognition of facial landmarks using machine learning algorithms., Multimedia Tools and Applications 2022, Impact factor 2.757, https://doi.org/10.1007/s11042-022-12775-6.

- Gyanendra Chaubey, Prathamesh Rajendra Gavhane, Dhananjay Bisen and Siddhartha Kumar Arjaria, Customer purchasing behavior prediction using machine learning classification techniques., Journal of Ambient Intelligence and Humanized Computing (2022), impact factor 7.104, https://doi.org/10.1007/s12652-022-03837-6.

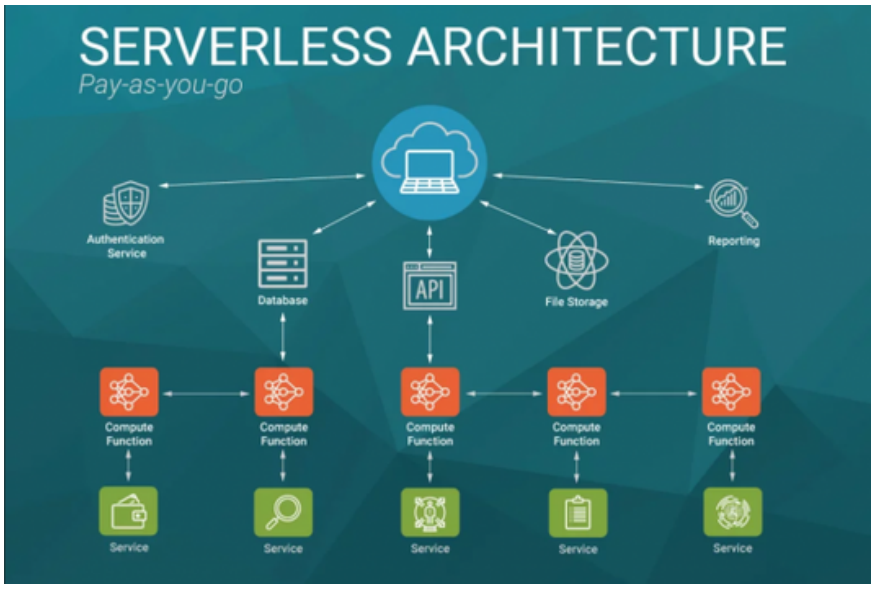
Latest Technogies

Serverless computing:

Serverless computing is a method of providing backend services on an as-used basis. A serverless provider allows users to write and deploy code without the hassle of worrying about the underlying infrastructure. A company that gets backend services from a serverless vendor is charged based on their computation and do not have to reserve and pay for a fixed amount of bandwidth or number of servers, as the service is auto-scaling. Note that despite the name serverless, physical servers are still used but developers do not need to be aware of them.

Serverless computing allows developers to purchase backend services on a flexible 'pay-as-you-go' basis, meaning that developers only have to pay for the services they use. This is like switching from a cell phone data plan with a monthly fixed limit, to one that only charges for each byte of data that actually gets used.

The term 'serverless' is somewhat misleading, as there are still servers providing these backend services, but all of the server space and infrastructure concerns are handled by the vendor. Serverless means that the developers can do their work without having to worry about servers at all.



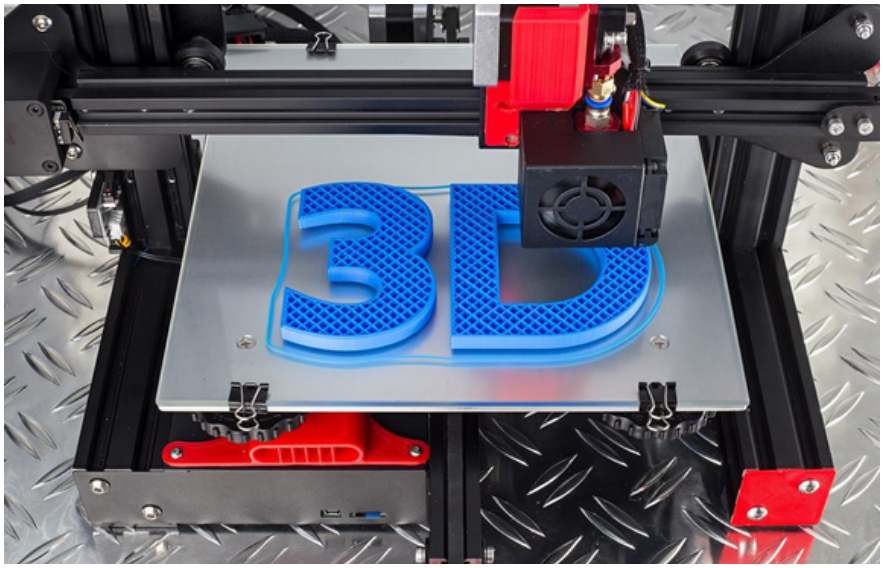
3D Printing

3D printing is a process that uses computer-aided design, or CAD, to create objects layer by layer. 3D printing is commonly used in manufacturing and automotive industries, where tools and parts are made using 3D printers.

3D printers use CAD to create 3D objects from a variety of materials, like molten plastic or powders. 3D printers can come in a variety of shapes and sizes ranging from equipment that can fit on a desk to large construction models used in the making of 3D-printed houses. There are three main types of 3D printers and each uses a slightly different method.

TYPES OF 3D PRINTERS

- Stereolithographic, or SLA printers, are equipped with a laser that forms liquid resin into plastic.
- Selective laser sintering, or SLS printers, have a laser that sinters particles of polymer powder into an already solid structure.
- Fused deposition modeling, or FDM printers, are the most common. These printers release thermoplastic filaments that are melted through a hot nozzle to form an object layer by layer.



"It has become appallingly obvious that our technology has exceeded our humanity." — Albert Einstein.