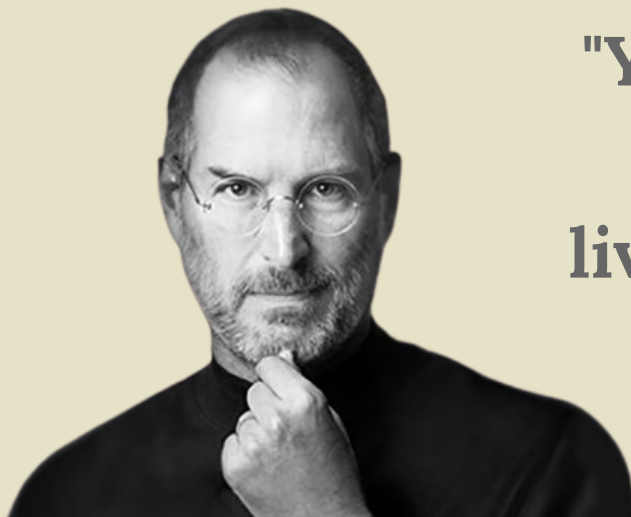December 2021 | Volume 1 | Edition 4

AIML INSHORTS

Department of Artificial Intelligence and Machine Learning

CONTENTS

"Your time is limited, so don't waste it living someones else's life."

– Steve Jobs

Vidya Vikas Education Trust's

Universal College of Engineering

Near Bhajansons and Punyadham, Kaman Bhiwandi Road, Vasai, Palghar-401208.
(Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai)
Accredited with B+ Grade by NAAC | A Gujarati Linguistic Minority Institution

DEPARTMENT VISION AND MISSION

VISION

To be a department focused on quality education and research in Artificial Intelligence & Machine Learning that prepares early professionals contributing to serve the society.
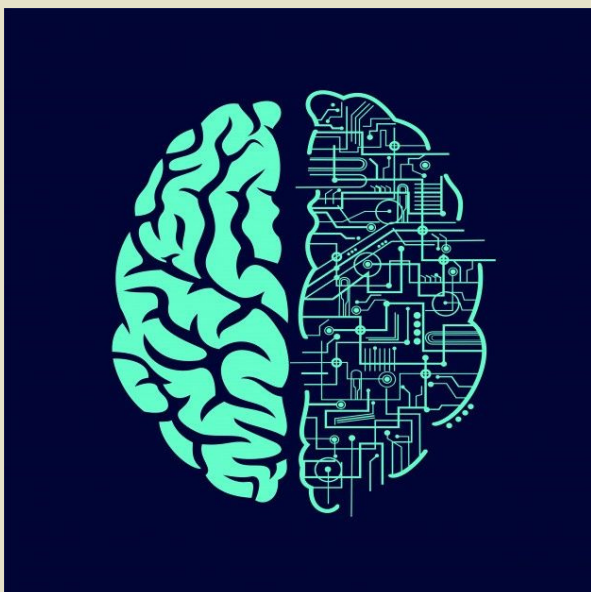
MISSION

To provide an academic environment for the development of professionals in the field of Artificial Intelligence and Machine Learning.

To cultivate research culture resulting in knowledge and development of the society.

To enhance academic collaborations for better exposure.

ADVISORY BOARD FOR AI&ML

Advisory Board for Department of Artificial Engineering & Machine Learning; Computer Engineering, Data Engineering, and Information Technology, Universal College of Engineering for 2021-22

We at UCOE define an advisory committee as, "A formally organized committee that provides expert advice and assistance to the professional technical programs offered by the college.

Board of Advisors:

It is pool of eminent thought leaders from business, academia, government agencies, and the community who advise and assist the college in creating and sustaining a pre-eminent institution of engineering education, research, and service. Board members are keenly interested in promoting cutting-edge research programs and in addressing engineering education issues – from preparing high school students to succeed in college to graduating outstanding engineers.

Radhika Pillai, PSM – I , SAFe Agilist(SA), TCS' Internal IT Unit– Ultimatix:

Radhika is a Computer Engineering graduate with over 17+ years of work experience, she works as an Agile Coach with TCS' Internal IT Unit– Ultimatix. She has a rich experience in Agile Coaching, Strategic transformation programs and Agile frameworks, worked on diverse platforms and grown into roles ranging from Developer to Techno-functional Project & Program Manager.

Vidya Vikas Education Trust's
Universal College of Engineering
Near Bhajansons and Punyadham, Kaman Bhiwandi Road, Vasai, Palghar-401208.
(Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai)
Accredited with B+ Grade by NAAC | A Gujarati Linguistic Minority Institution

ADVISORY BOARD FOR AI&ML CONTD.

Dr. Manish Prateek, M.S. (Computer Engineering), Ph.D. (Robotics)-L. N. Mithila University

Dr. Manish is also the Executive Director in Pentagram Research Centre Pvt. Limited. His areas of Research are Robotics, Embedded Systems, VANET, Computer Network, Ad Hoc Network, Image Processing, SignalAnalysis, guided 13 Ph.D. scholars and published 100+ Journal and Conference papers in International Journals and Conferences.

Dr. Nilesh Uke, PhD, Principal, Trinity Academy of Engineering, Pune

Dr. Uke is skilled in C++, Core Java, Java, JavaServer Pages (JSP), and SQL, guided 04 Ph.D scholars in the areas of Image Processing, Big data. He has published more than 100+ Journal and Conference papers in International Journals and Conferences. He is awarded with Excellent Teacher Award (TEA - 2018) by MT Research and Educational Services.

Dr. Sushil Kulkarni, Associate Professor and Head of Mathematics Department at Jai Hind Autonomous College, Mumbai

Dr. Kulkarni has 36 years of teaching experience in Computer Science, Mathematics and Statistics, an active researcher of Advance Database Management System (ADBMS) and Machine Learning(ML), also a research guide at the Department of Computer Science, University of Mumbai.He is an active volunteer in various conferences sponsored by IEEE , Springer, Mir Labs and ACEEE.

ADVISORY BOARD FOR AI&ML CONTD.

Mr. Chandrakant Dhutadmal, Joint Director, C-DAC, Pune

Mr. Chandrakant has16 years of experience in Indian language technologies and Engineering education. He is deputed by C-DAC in various National and International events like elitex, agis in Limerick, Ireland, "Hindi World Conference" at Johannesburg, South Africa, Bhopal and Mauritius. A vast area of expertise in Quality Engineering , Software Localization, Open Source and Technical Evangelism, Project Management, worked on various projects under MeitY, Govt of India in Indian Language Computing Initiative -Information Security Education & Awareness, National Language TranslationMission.

Mr. Nishant Tiwari, Project Manager, Aim Global Solutions Ltd.

Mr. Nishant has been involved with professional software design and development for over a decade, started his career in the start-up environment in United Kingdom and Mumbai, developed and deployed projects for defence, e-commerce and travel industries. He's the founder of cloudtantra.ioan ecommerce platform and also the co-founder of l33tpwn.coman ethical hacking platform. He currently holds 5 AWS certifications, a certified Project Management Professional and Kubernetes Application developer.

TECHNICAL PAPER EXPERT SESSION
(FOR FACULTIES)

An Expert Session on "Technical Paper Writing, Creating abstract and checking Plagiarism" was hosted by UCOE for all the faculty members. The session was conducted on 29th Nov, 2021 from 10.30 am to 12 noon by Dr. Nilesh Uke, Principal, Trinity Academy of Engineering, Pune. The session was attended by all the faculty members. The speaker gave an insight on the following:

 1) Various tips on how to effectively use Google search for finding documents and papers.

 2) Harzing "Publish and Perish" tool

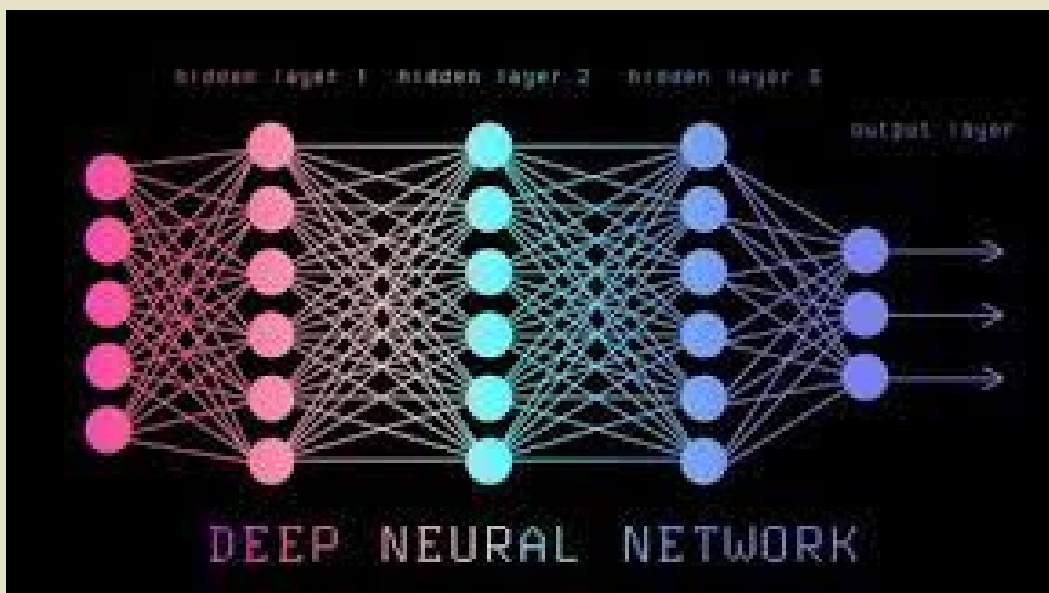 3) Creating various tech profiles on ORCid, Academia, Google Scholar.

 4) Usage of Mendeley as an add-on component in Word for citations and references.

Vidya Vikas Education Trust's
Universal College of Engineering

Near Bhajansons and Punyadham, Kaman Bhiwandi Road, Vasai, Palghar-401208.
(Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai)
Accredited with B+ Grade by NAAC | A Gujarati Linguistic Minority Institution

AI REALM

NEURAL NETWORKS

In recent years, deep artificial neural networks (including recurrent ones) have won numerous contests in pattern recognition and machine learning. This historical survey compactly summarizes relevant work, much of it from the previous millennium. Shallow and Deep Learners are distinguished by the depth of their credit assignment paths, which are chains of possibly learnable, causal links between actions and effects. I review deep supervised learning (also recapitulating the history of backpropagation), unsupervised learning, reinforcement learning & evolutionary computation, and indirect search for short programs encoding deep and large networks.
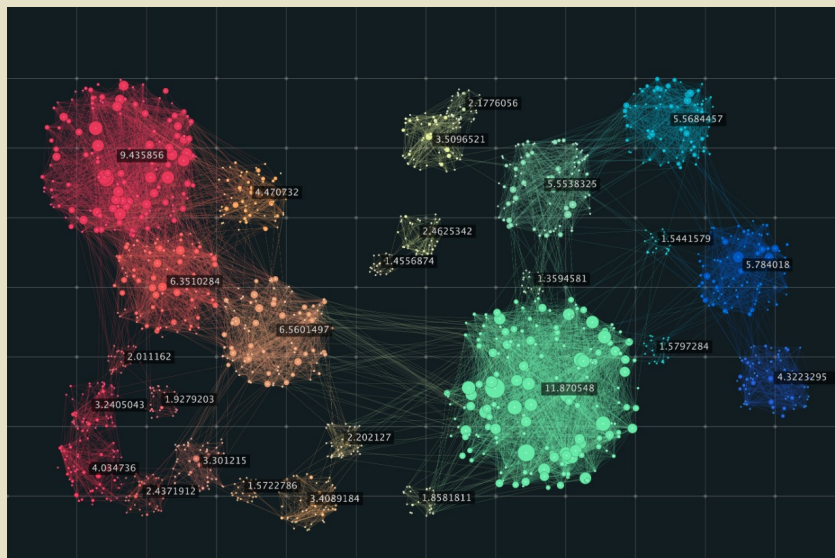
Vidya Vikas Education Trust's

Universal College of Engineering

Near Bhajansons and Punyadham, Kaman Bhiwandi Road, Vasai, Palghar-401208.
(Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai)
Accredited with B+ Grade by NAAC | A Gujarati Linguistic Minority Institution
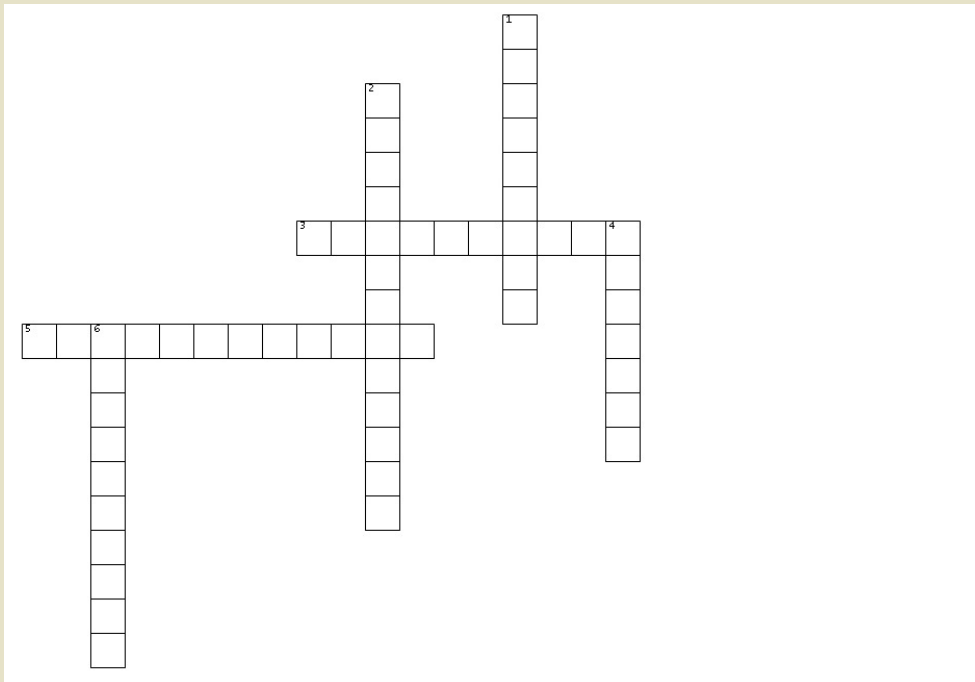
MAN VS MACHINE

CLUSTERING IN ML

It is basically a type of unsupervised learning method. An unsupervised learning method is a method in which we draw references from datasets consisting of input data without labeled responses. Generally, it is used as a process to find meaningful structure, explanatory underlying processes, generative features, and groupings inherent in a set of examples.

Clustering is the task of dividing the population or data points into a number of groups such that data points in the same groups are more similar to other data points in the same group and dissimilar to the data points in other groups. It is basically a collection of objects on the basis of similarity and dissimilarity between them.

Universal College of Engineering

Near Bhajansons and Punyadham, Kaman Bhiwandi Road, Vasai, Palghar-401208.
(Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai)
Accredited with B+ Grade by NAAC | A Gujarati Linguistic Minority Institution

FACTS AND GAMES

ACROSS
3. the making of a judgement about the amount, number, or value of something; assessment.
5. use of artificial intelligence (AI) algorithms to identify patterns in data sets containing data points

DOWN
1. a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.
2. a series of algorithms that endeavors to recognize underlying relationships in a set of data through a process that mimics the way the human brain operates
4. a group or system of interconnected people or things.
6. machine learning task of learning a function that maps an input to an output based

DID YOU KNOW?

One-shot learning is a recognised problem for Machine Learning and Deep Learning, and experts in the field are working on ways to overcome that problem. It seems unlikely to me that ML/DL strategies will get to Artificial General Intelligence (AGI) without some form of one-shot learning.

Vidya Vikas Education Trust's
Universal College of Engineering
Near Bhajansons and Punyadham, Kaman Bhiwandi Road, Vasai, Palghar-401208.
(Permanently Unaided | Approved by AICTE, DTE & Affiliated to University of Mumbai)
Accredited with B+ Grade by NAAC | A Gujarati Linguistic Minority Institution

REACH US

🌐 ucoe.edu.in

📍 Near Bhajansons & Punyadham, Kaman Bhiwandi Road, Vasai, Dist. Palghar - 401 205

📞 + 91 8407979167 / 8007090722 / 8007478659

@ info.ucoe@universalcollege.edu.in

f UCoEKaman

📷 ucoe_mumbai