A.V.C COLLEGE OF ENGINEERING, MANNAMPANDAL

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

"FORCE (FORum of Computer science and Engineers') Newsletter"

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HOD'S DESK

The frequent lockdowns have unavoidably had their toll on our routines. The proverb "change is the only constant" remains true in most and our education is no exception The pandemic continues to have highly uncertain consequence all around the world that we still experience, almost two years since its encounter. However, we seem to have adapt to the challenging new normal. Our faculty and students have gone above and beyond with their achievements and have managed to remain consistent in their efforts and hardwork throughout. We look forward to the next semester with utmost confidence and promise. I appreciate all the students those who have participated/ won prizes in the CSI student chapter paper presentation Contest. Special appreciation to S.Paravadhavarthini received I prize in the national level technical symposium @ Arasu Engineering College. Also I Congratulate the students won the prizes in Yaazh awards by MSME.

"No lesson is difficult once you start reading it,
No goal is difficult to accomplish once you start working hard for you
All you need to do is take the first step…
May in this year, you take all the first steps you missed on in the last year"

Dr.S.Padmapriya, HOD/CSE

Faculty Corner

TECHNOLOGY ENABLED LEARNING (TEL)

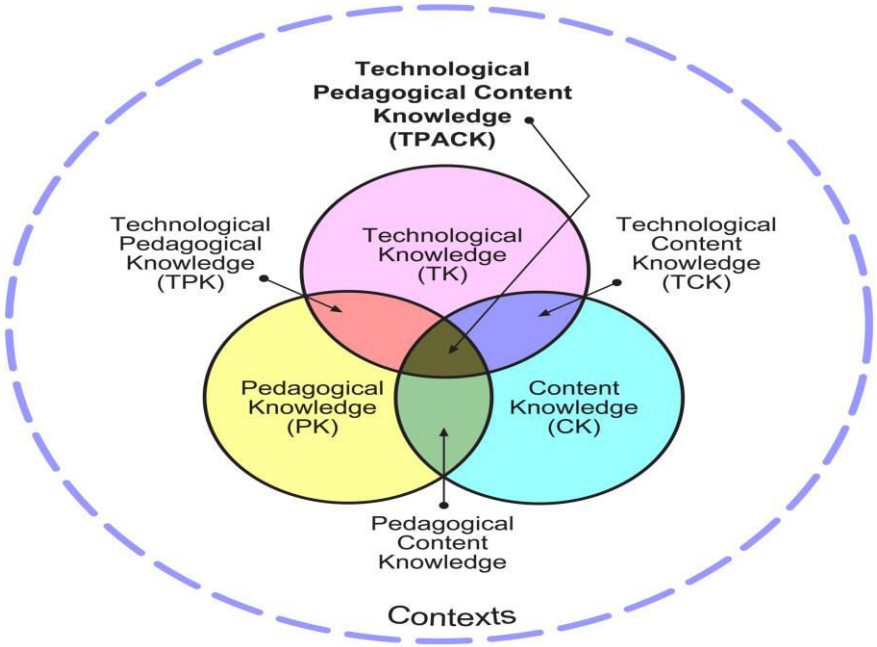
Mrs. M.DEVI SRI NANDHINI, AP/CSE

Introduction:

Technology in education enables students to adjust to their own pace of learning. Students who need extra time can spend more time going over exercises until they understand, whilst students who need less support can continue ahead. It also frees up the teacher to help kids who need more support on an individual level.

Technology-Enabled Learning (TEL) describes the use of technology, platforms, systems and digital content to extend and enhance student-centred learning. The design of TEL environments starts with the consideration of pedagogical principles. The TEL website provides advice and frameworks planning, designing, building, delivering and reviewing subjects. Technology can support student collaboration on creating new knowledge, reflecting on what they are learning, or working together to achieve a deeper understanding of course material. These articles provide ideas about their use and misuse. Technology in learning refers to the tools (hardware, software, networks, web applications (apps) and the processes (methods and strategies used for instruction, assessment, tracking student learning, our educational organizations, learning management systems)

Fig.No.1.Diagram for Technology enabled Learning



Ten Principles used Technology in Learning

The following ten principles are intended to provide a guide for reflecting on the purpose and use of technology in learning.

1. Adding value
2. A pedagogical focus
3. Quality
4. Sustainability
5. Access
6. Scalability
7. Sharing
8. Choice
9. Continuous, lifelong learning
10. Customization

Using Technology to enhance Teaching and Learning

Technology provides numerous tools that teachers can use in and out of the classroom to enhance student learning. Below are links to resources on using specific types of teaching and learning tools.

- Whiteboard
- Presentation Software
- Classroom Response Systems ("clickers")
- Online Projects and Collaboration Tools
- Information Visualization Tools
- Flipping the Classroom
- Podcasts
- Games

Advantages of Technology enabled Learning

Course modules are recorded and available on the web at all times. The employees need not hurry or slow down their learning as it is usually seen in traditional classrooms. They can chart out a learning path as per their comfort and pace.

PREDICTIVE ANALYTICS

Ms.R.DEVIKA, II CSE

Introduction:

Predictive analytics is the branch of the advanced analytics which is used to make predictions about unknown future events. Predictive analytics uses many techniques from data mining, statistics, modeling, machine learning, and artificial intelligence to analyze current data to make predictions about future.

Predictive analytics is the use of data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes based on historical data. The goal is to go beyond knowing what has happened to providing a best assessment of what will happen in the future. Predictive analytics is an area of statistics that deals with extracting information from data and using it to predict trends and behavior patterns. The enhancement of predictive web analytics calculates statistical probabilities of future events online. Predictive analytics statistical techniques include data modeling, machine learning, AI, deep learning algorithms and data mining. Predictive analytics can be applied to any type of unknown whether it is in the past, present or future. For example, identifying suspects after a crime has been committed, or credit card fraud as it occurs. The core of predictive analytics relies on capturing relationships between explanatory variables and the predicted variables from past occurrences, and exploiting them to predict the unknown outcome.

Fig.No.1 Diagram for Predictive Analytics

Features of Predictive Analytics

- Growing volumes and types of data, and more interest in using data to produce valuable insights.
- Faster, cheaper computers.
- Easier-to-use software.
- Tougher economic conditions and a need for competitive differentiation.

Why is predictive analytics important?

Organizations are turning to predictive analytics to help solve difficult problems and uncover new opportunities. Common uses include:

Detecting fraud: Combining multiple analytics methods can improve pattern detection and prevent criminal behavior. Cyber security becomes a growing concern, high-performance behavioral analytics examines all actions on a network in real time to spot abnormalities that may indicate fraud, zero-day vulnerabilities and advanced persistent threats.

Optimizing marketing campaigns: Predictive analytics are used to determine customer responses or purchases, as well as promote cross-sell opportunities. Predictive models help businesses attract, retain and grow their most profitable customers.

Improving operations: Many companies use predictive models to forecast inventory and manage resources. Airlines use predictive analytics to set ticket prices. Hotels try to predict the number of guests for any given night to maximize occupancy and increase revenue. Predictive analytics enables organizations to function more efficiently.

Reducing risk: Credit scores are used to assess a buyer's likelihood of default for purchases and are a well-known example of predictive analytics. A credit score is a number generated by a predictive model that incorporates all data relevant to a person's creditworthiness. Other risk-related uses include insurance claims and collections. Combine various data sources through tools.

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CONGRATULATIONS

The Following Students were placed in Tata Consultancy Services (TCS) through offline mode.

Batch 2018 - 2022

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CONGRATULATIONS

The Following Students were placed in Amshuhu I Tech Solution Private Limited.

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Editor's Desk

Ten Simple Ways to Be Successful in Life

Success is the accomplishment of certain goals you set in life. Each person has different ideas of what success might look like for them, like getting a certain job, earning a certain amount of money or owning a house. Here are 10 steps that can help you to be successful in life:

- **Think Big**
- **Find What You Love to Do and Do It**
- **Learn How to Balance Life**
- **Do Not Be Afraid of Failure**
- **Have an Unwavering Resolution to Succeed**
- **Be a Person of Action**
- **Cultivate Positive Relationships**
- **Don't Be Afraid of Introducing New Ideas**
- **Believe in Your Capacity to Succeed**
- **Always Maintain a Positive Mental Attitude**

Push your ideas to

Faculty: M.Kavitha,AP/CSE

Student Coordinator:

1. J.Rukshana Safrin, IV CSE
2. G.U.Samyuktha, III CSE
3. R.Anitha, II CSE

Editors-Force Newsletter

Mail-id:forcenewsletter@gmail.com

Institution Vision

To blossom into a cynosure of technological innovations.

Mission

To participate in the noble cause of nation building by offering professional education, research and training in engineering and technology especially to the rural based poor students.

Department Vision:

To excel in the field of Computer Science and Engineering with technological innovations.

Department Mission:

1. To impart quality technical education to the students through creative teaching learning process especially to the rural based students.

2. To create facilities and expertise in cutting-edge computer technologies through industry institute partnership.

3. To motivate the students to apply their innovative ideas to construct research models.

4. To transform the students into socially and ethically responsible professionals.

Programme Educational Objectives (PEOs):

Graduates of this B.E Computer Science and Engineering will be able to

PEO 1: To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering, or as entrepreneurs.

PEO 2: To ensure that graduates will have the ability and attitude to adapt to emerging technological changes.

PEO 3: To effectively communicate ideas in oral or written and to promote collaboration with other members of engineering teams.

Programme Outcomes (POs):

By the time of graduation, graduates will attain the following programme outcomes:

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

2. 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.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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.

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

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

10. 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.

11. 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.

12. 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.

Program Specific Objectives (PSOs)

1. To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering

2. To apply software engineering principles and practices for developing quality software for scientific and business applications

3. To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.