A.G & S.G Siddhartha Degree College for Arts & Science (Autonomous), Vuyyuru-521165.

> ## 2017-2018

Name of the Department: Computer Science
Name of the event: Guest Lecture
Topic: "Problem Solving Skills""
Date Conducted: 06-01-2017
Name and Designation of the Resource Person: Dr.M.Babu Reddy
Asst.Professor, Krishna University. Machilipatnam.
Report on the guest lecturer:

1. Objectives:

Those with problem-solving skills will also possess the ability to make decisions and be confident in them.

2. Notes on lecture:

Candidates with great problem-solving skills have a combination of both analytical and creative thinking. They're comfortable with making decisions and confident enough to rise to challenges in the workplace.
There are six key problem-solving skills

1. Listening skills

Active listeners are generally great problem solvers. They can listen to those around them to gather the information needed to solve the problem at hand. They recognize the importance of valuing others' opinions and experiences to help understand why the problem occurred and the best course of action to remedy it.

2. Analytical thinking skills

Analytical thinkers can identify the logical reasons why a problem occurred, what the long-term effects of the issue could be, and identify how effective different solutions might be to select the most practical one.

3. Creative thinking skills

Creative thinkers can balance their analytical skills with creative solutions. Creative thinking skills allow individuals to uncover innovative and progressive solutions to problems. They're able to provide new perspectives and provide imaginative and experimental solutions to all kinds of problems.

4. Communication skills

Problem solvers should also possess great communication skills. The ability to effectively relay complex information thoroughly yet succinctly is a huge benefit for employers working in fast-paced environments.

5. Decision-making skills

Those with problem-solving skills will also possess the ability to make decisions and be confident in them. This is important, as most problem-solving steps involve making firm decisions to provide a successful outcome.

3. Outcome:

- identify and use appropriate technology to research, solve, and present solutions to problems.
- Understand the roles of collaboration, risk-taking, multi-disciplinary awareness, and the imagination in achieving creative responses to problems.
- Make a decision and take actions based on analysis.

Signature of the HOD

(T.Naga Prasad Rao)

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> ## 2017-2018

Name of the event: Guest Lecture

Topic: "How to Develop a Project"

Date Conducted: 01-02-2017

Name and Designation of the Resource Person: K.Anil Software Developer, Ynot Solutions, Vijayawada

Report on the guest lecture:

1. Objectives:

After completing the training, participants will:

1. Have an overview of the project planning and development process.

2. Complete activities that incorporate the 11 steps of project development

2. Notes on lecture:

A project process is divided into five main phases, collectively known as the project life cycle. Given the amount of work that goes into planning an entire project, it is more practical to break the project into phases for effective execution and monitoring. The project life cycle provides a framework within which the project activities and resources are organized into a logical execution sequence for optimal utilization of resources and ultimately the best outcome.

Each project phase is goal-oriented and will include:

- A list of activities that need to be accomplished during the phase
- Details of team members and their roles
- Project deliverables
- Resources allocated to the specific phase of the project
- Performance monitoring guidelines

3. Outcome:

- Determining if you met your business objectives
- Learning lessons for future projects and identifying areas for improvement
- Providing an overall purpose for your project
- Discovering ways for meeting the needs of your clients
- Helping make sure all parts of the project serve the end goal

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- ## 2017-2018
  Name of the Department: Computer Science
  Name of the event: Two Day Workshop
  Topic: "Hardware and Networking"
  Date Conducted: 10-01-2018 to 11-01-2018
  Name and designation of the resource person: V.VenkataRamana, (System Analyst), P.B Siddhartha College of Arts & Science, Vijayawada.
  Report on the guest lecturer:
  1. Objectives:

  Network hardware is a set of physical or network devices that are essential for interaction and communication between hardware units operational on a computer network. These are dedicated hardware components that connect to each other and enable a network to function effectively and efficiently.

  2. Notes on lecture:

  Network hardware plays a key role as industries grow as it supports scalability. It integrates any number of components depending on the enterprise's needs. Network hardware helps establish an effective mode of communication, thereby improving the business standards. It also promotes multiprocessing and enables sharing of resources, information, and software with ease.

  Let's look at the fundamental devices of a computer network.

  - **Modems:** A modem enables a computer to connect to the internet via a telephone line. The modem at one end converts the computer's digital signals into analog signals and sends them through a telephone line. **Routers:** A router connects two or more networks. One common use of the router is to connect a home or office network (LAN) to the internet (WAN). These are also referred to as wireless access points (WAPs).
  - **Hubs, bridges, and switches:** Hubs, bridges, and switches are connecting units that allow multiple devices to connect to the router and enable data transfer to all devices on a network.
  - **Network interface cards**: A network interface card (NIC) is a hardware unit installed on a computer, which allows it to connect to a network. It is typically in the form of a circuit board or chip. In most modern machines, NICs are built into the motherboards, while in some computers an extra expansion card in the form of a small circuit board is added externally.
  - **Network cables**: Cables connect different devices on a network. Today, most networks have cables over a wireless connection as they are more secure, i.e., less prone to attacks, and at the same time carry larger volumes of data per second.
  - **Firewall:** A firewall is hardware or software device between a computer and the rest of the network open to

attackers or hackers A firewall allows authorized connections and data-like emails or web pages to pass through but blocks unauthorized connections made to a computer or LAN.

3. Outcome:

As a student in Computer Networking (BSCN) you will gain valuable skills in computer networks (switching, routing), system and network administration, computer and network security, operating systems, web programming, databases, and project management.

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➢ **2017-2018**

Name of the event: National Seminar

Topic: "Hyperspace of objects (Internet of things)"

Date Conducted: 25-01-2018

Name and designation of the resource person: Dr. Snatanu Chattereji Scientist in DRDO, Dr. Vinod Kumar Mahar ER & CS/ICT Directorate

Report on the guest lecture:

1. **Objectives:**

   The goal behind the Internet of things is to have devices that self report in real-time, improving efficiency and bringing important information to the surface more quickly than a system depending on human intervention.

2. **Notes on lecture**:

   The goal behind the Internet of things is to have devices that self report in real-time, improving efficiency and bringing important information to the surface more quickly than a system depending on human intervention.

   - The Internet of Things (IOT) is a name for the aggregate collection of network-enabled devices, excluding traditional computers like laptops and servers.
   - Types of network connections can include Wi-Fi connections, Bluetooth connections, and near-field communication (NFC).
   - IOT includes devices such as "smart" appliances, home security systems, computer peripherals, wearable technology, routers, and smart speaker devices.
   - The Internet of Things is transforming a wide range of fields, from medicine to urban planning to consumer data collection.

3. **Outcome:**

   The Internet of Things (IOT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.
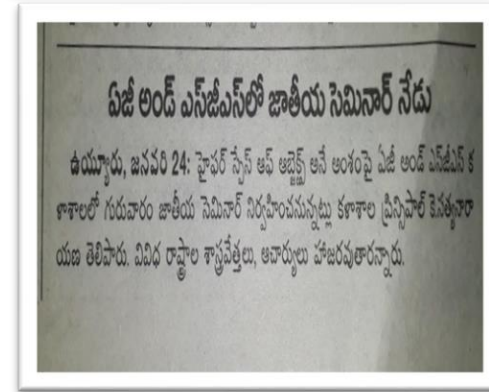
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➢ **2017-2018**

Name of the event: Guest Lecture
Topic: "Theory of Computation"
Date Conducted: 26-02-2018
Name and Designation of the Resource Person: M.Anand Kumar,
Lingayya's Institute of Engineering College, Vijayawada.
Report on the guest lecture:

1. Objectives:

An Automaton is a machine that operates singularly on input and follows a defined pattern or configuration to produce the desired output. Through automata, we learn how problems and compute functions are solved by the use of automatons.

2. Notes on lecture:

Finite Automata is useful in building text editors/text preprocessors. FA are poor models of computers. They can only perform simple computational tasks.

Context-Free Grammars (CFGs): They are more powerful abstract models than FA and are essentially used in the programming languages and natural language research work.

Turing Machines: They are abstract models for real computers having an infinite memory (in the form of a tape) and a reading head. They form much more powerful computation models than FA, CFGs, and Regular Expressions.

3. Outcome:

- able to design Finite Automata machines for given problems
- able to analyze a given Finite Automata machine and find out its Language
- able to design Pushdown Automata machine for given CF language(s)
- able to generate the strings/sentences of a given context-free languages using its grammar
- able to design Turing machines for given any computational problem.

Signature of the HOD
(T.Naga Prasad Rao)