



***MVR NEWS LETTER FOR THE
YEAR 2014-15***

Bringing out the Best
in every Student...



MVR

College of Engineering & Technology

Affiliated To JNTU Kakinada, Recognized By AICTE

Opp Hanuman Statue, Paritala, Vijayawada Rural



The Institution has been established by the well reputed SWARNA GROUP of VIJAYAWADA under the aegis of SWARNA ACADEMY OF SCIENCES, VIJAYAWADA. The **SWARNA GROUP** has been in the existence for more than 35 years with diversified fields of business viz., Hotels, Theatres, Banking, Finance, Real estate, Granite and Education.

SWARNA ACADEMY OF SCIENCES, VIJAYAWADA (ACADEMY) was established in the year 2007 for the noble cause of imparting high quality technical education in Engineering, Technology, and Management sciences. The ACADEMY is promoted by **Sri Muthavarapu Srinivasa Babu**, a very dynamic, innovative and enterprising person, committed and dedicated to the cause of education.

SWARNA ACADEMY OF SCIENCES, VIJAYAWADA has instituted its first educational institution “MVR College of Engineering and Technology, Paritala”, in the year 2008, with the state-of-the-art facilities, such as modern computer centre, E-class rooms, round the clock internet facilities, well equipped Labs, workshops, conference cum seminar halls, spacious class rooms with OHP and LCD projectors, digital library, library with rich collection of books, national and international journals. Placement assistance cell, hygienic canteen, sports, transport facilities and city centre make MVR COLLEGE OF ENGINEERING & TECHNOLOGY, PARITALA a perfect place to study.



Academics are a continuing process of exploration, growth and sustenance. Today information explosion has brought about many changes. New ideas are generated, new interpretations are given and new applications are invented. The equations are changing very fast both in education and at the work place. Every day brings in new demands.

One has to constantly upgrade to cope with the fast emerging trends. A software professional once said “We are training people in technologies to find solutions for problems that have not yet been identified”. Moreover the roles and responsibilities of professionals are ever expanding making it imperative to move beyond the confines of the classroom and the stipulated curriculum and focus on the skills needed to cater to the needs of the society.

Hence it has become imperative to all the stakeholders in education to arm themselves with the necessary knowledge, skills and attitude to keep themselves abreast of the rapid changes. That explains everything—the Chairman’s message to the faculty to constantly update themselves with the emerging new technologies and concepts, the focus on research, paper presentations and publications, undertaking new projects, adopting new technologies for information collection and dissemination as well.

“The key to growth is the introduction of higher dimensions of consciousness into our awareness”
-- Lao Tzu.

Student achievements (2014-15)

The department of CSE congratulating the following students for their achievements

1. G NAGASRI, WINNER PUZZLE HUNT,LBRCE,MYLAVARAM
2. E DURGA BHAVANI, RUNNER,C CODING,LBRCE,MYLAVARAM
3. E GEETHIKA,SECOND RUNNER,PUZZLE HUNT,VR SIDDARDHA,VJA
4. N L PRIYANKA,CONSOLATION,PUZZLE HUNT,VRS,VJA

FRESHERS DAY - A Gala Celebration



Fresher's day was grandly celebrated at MVR ENGINEERING COLLEGE in Smt. SWARNADEVI Indoor Auditorium. It was a great evening aimed at building a bond of friendship and nurturing fellowship among the student fraternity.

Cultural programmes were the highlight of the day which saw all the juniors and seniors participate with full zest. Dances, songs, skits and games kept the audience enthralled throughout.

The entire campus reverberated with the joy of the students.

The Induction Program acquaints the parents and students with the B.Tech course and the college. The students are taken on a campus visit so as to familiarize them with the campus and its facilities. This will be followed by Interaction with the Principal of the campus and the HODs. Through this interaction students and parents get a lot of valuable information regarding the strategies to follow and practices to adopt during the course. An Orientation program is conducted to introduce the course structure, syllabus and resources to the students.

Vishnu Institute of Technology has once again achieved the distinction of getting high percentage of seats filled. We extend our heartfelt gratitude to all the parents and students who have supported us all through. We shall continue to contribute our best and expect the parents and students to cooperate with us.

Articles

Geographical Routing with Location service in Intermittently Connected MANETS

Combining mobile platforms such as manned or unmanned vehicles and peer-assisted wireless communication is an enabler for a vast number of applications. A key enabler for the applications is the routing protocol that directs the packets in the network. Routing packets in fully connected mobile ad hoc networks (MANETs) has been studied to a great extent, but the assumption on full connectivity is generally not valid in a real system. This case means that a practical routing protocol must handle intermittent connectivity and the absence of end-to-end connections. In this project, we propose a geographical routing algorithm called location-aware routing for delay-tolerant networks (LAROD), enhanced with a location service, location dissemination service (LoDiS), which together are shown to suit an intermittently connected MANET (IC-MANET). Because location dissemination takes time in IC-MANETs, LAROD is designed to route packets with only partial knowledge of geographic position.

DTN routing in opportunistic networks: Routing in DTNs with opportunistic contacts is challenging since contact times and durations are not known in advance. Three examples of location unaware routing protocols for this environment are Randomized Routing, Epidemic Routing and Spray and Wait. In Randomized Routing only a single copy of a packet is present in the network. When two nodes meet a packet is handed over to the other at some set probability. This means that a packet randomly walks around in the network until it reaches the destination. This routing principle is better than keeping a packet at the source node until it comes in contact with the destination provided that the transmission speed is faster than the node movement or if node movements are local.

In Epidemic Routing packets are distributed to all nodes in the network (or at least a considerably large subset of nodes) giving a high cost in both transfer

and storage overhead. In Spray and Wait a packet is distributed to a small number of nodes. The nodes receiving the packet store it and the first node to meet the destination will deliver the packet. Spray and Wait can be an efficient protocol if the nodes that carry the packet cover a large part of the network with their mobility.

If the nodes are location aware and the (approximate) location of the destination is known then one can perform geographic routing. Li et al. have modified GPSR to better handle short temporary disruptions due to obstructions, node mobility or interference in relatively sparse networks (55 nodes/km² compared to our even more sparse scenario that has 10-30 nodes/km²). By using temporary storage (up to 2 seconds) and having a set of possibly reachable neighbors they substantially increased the delivery ratio compared to GPSR. LeBrun et al.] have performed geographical routing in a very sparse (0.3-4.4 nodes/km²) delay tolerant network with a stationary destination. Using a request-response mechanism beaconing is limited to the nodes that have data to transmit. Beacons-less routing:

Most routing protocols require knowledge of the neighbors of a node to make their routing decisions. This information is generally gathered by the use of beacons, messages broadcasted regularly that will be heard by all nodes within communication distance. A problem with beacons is that the gathered neighbor information is always to some extent old. Another issue is that beacons consume bandwidth, bandwidth that could be used for data transmissions. A problem for energy-constrained networks is that beacons consume energy irrespective of whether there is data to transmit or not. study the impact of incorrect neighbor information due to beaconing for position based routing protocols. An example of a beacon-less routing protocol is BLR by Heissenbüttel et al. BLR is a geographic routing protocol where nodes broadcast a packet when they want to send it. Nodes within a defined forwarding area are eligible to forward the packet and the actual node to forward a packet is determined by a timer function. For the best node the timer will expire first and it will then broadcast the packet. The other nodes waiting to forward the packet will hear

this transmission and cancel their transmissions. If the greedy forwarding fails then a backup mode is entered and the packet is forwarded along the edge of a planar subgraph until the packet comes closer to the destination than it was when the backup mode was entered. To conserve energy and bandwidth BLR uses unicast routing for a period of time after a route has been established. To be able to handle position error and mobility of the destination a reactive local routing algorithm is used in the vicinity of the destination. When a natural disaster strikes, the critical infrastructure that supports our society can be completely disabled for long periods of time. After an earthquake or flood, we cannot expect telecommunication services such as GSM or UMTS to function. Moreover, due to the interdependencies between different types of infrastructures, disruptions can also be caused by more commonly occurring incidents such as heavy storms. Currently, many types of communication media are used by first-responder communities, ranging over specialized equipment, standard telecommunication devices and the Internet. While the specialized equipment (satellite, TETRA based systems, JTRS, UTF radio, etc) may resist a setback during disasters, the most likely scenario is that GSM, 3G, etc will be severely overloaded, if not destroyed. Experience has shown that when large number of actors is involved in major disasters, the specialized equipment can beneficially be complemented with ad hoc communication over commodity devices. These networks can be set up quickly without central management, where no infrastructure exists, and allow communication at a very low cost. An experience report from the Katrina hurricane demonstrates the usefulness of being able to set up spontaneous networks in disaster areas. Location Aware Routing for Delay-tolerant Networks (LAROD) LAROD is a geographical routing protocol for DTNs that combines geographical beaconless routing such as BLR and CBF with the store-carry-forward principle. In its essence LAROD uses greedy packet forwarding when possible. When greedy forwarding is not possible the node holding the packet (the custodian) waits until node mobility makes it possible to resume greedy forwarding. To obtain the location of the destination LAROD inquires a location service. In order to forward a message

towards the destination a custodian simply broadcasts the message. All nodes within a predefined forwarding area are eligible to forward the packet and are called tentative custodians. All tentative custodians set a delay timer (t_d) specific for each node, and the node whose delay timer expires first is the selected new custodian. Upon becoming a custodian the node forwards the message in the same manner as the previous custodian. The old custodian that sent the message and most other tentative custodians will overhear this transmission and conclude that a new node has taken over custody of the packet. It is possible that not all nodes in the forwarding area will overhear the broadcast made by the new custodian thereby producing packet duplicates. This will increase the load in the system but also enable exploration of multiple paths to the destination. When the paths of two copies cross only one copy will continue to be forwarded. To prevent a packet from indefinitely trying to find a path to its destination all packets have a time to live (t_{TTL}) expressed as duration. When the TTL expires a packet is deleted by its custodian

Events @ MVR 2014

INDUSTRIAL VISITS



ALUMNI MEET



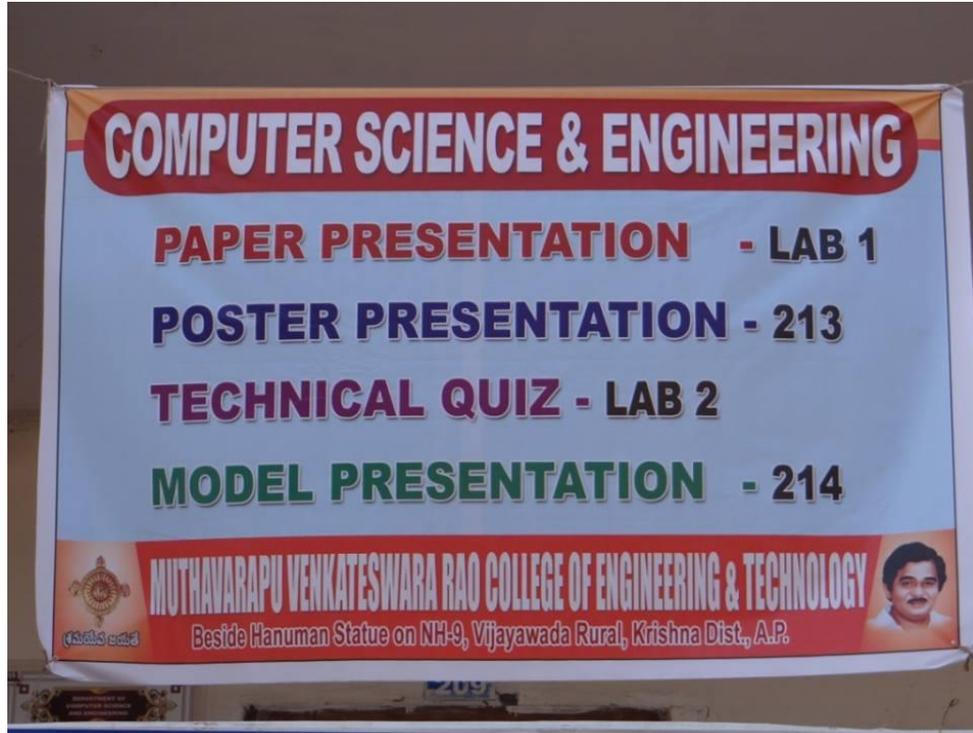
RONGOLI EVENT



SPORTS CARNIVAL



PAPER PRESENTATIONS HELD @MVR





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