



CONTENTS

Institutional Vision, Mission	1
Vision, Mission, PEO's, PO's of ITD.....	1
Article on Wireless Sensor Networks.....	2
Departmental Activities.....	3
Faculty Achievements.....	3
Student Achievements	3
Student Activities.....	4
Announcements.....	5
Academic Calender.....	6

INSTITUTIONAL VISION

To be part of universal human quest for development and progress by contributing high calibre, ethical and socially responsible engineers who meet the global challenge of building modern society in harmony with nature.

INSTITUTIONAL MISSION

- i. To attain excellence in imparting technical education from the undergraduate through doctorate levels by adopting coherent and judiciously coordinated curricular and co-curricular programs.*
- ii. To foster partnership with industry and government agencies through collaborative research and consultancy*
- iii. To nurture and strengthen auxiliary soft skills for overall development and improved employability in a multi-cultural work space*
- iv. To develop scientific temper and spirit of enquiry in order to harness the latent innovative talents*
- v. To develop constructive attitude in students towards the task of nation building and empower them to become future leaders*
- vi. To nourish the entrepreneurial instincts of the students and hone their business acumen.*
- vii. To involve the students and the faculty in solving local community problems through economical and sustainable solutions.*

DEPARTMENT VISION

To create a ambiance of academics, excellence through state of art infrastructure and learner-centric pedagogy to employability in multi-disciplinary fields.

DEPARTMENT MISSION

Fostering a bright technological future by enabling the students to function as leaders in software industry and serve as means of transformation to empower society through ITes.

PROGRAMME EDUCATIONAL OBJECTIVES

- i. Graduates will demonstrate technical competence and leadership in their chosen fields of employment by identifying, formulating, analyzing and creating efficient IT solutions.*
- ii. Graduates will be successful as software engineers, academicians, researchers, and administrators appropriate to their background, interest and education.*
- iii. Graduates will communicate effectively as individuals or team members and be successful in varied working environment.*
- iv. Graduates will demonstrate lifelong learning through continuing education and professional development*
- v. Graduates will be successful in providing viable and sustainable solutions within societal, professional, environmental and ethical context.*

PROGRAMME OUTCOMES

- i. Apply knowledge of computing, mathematics, science and IT engineering fundamentals for solution of complex problems.*
- ii. Analyze a problem, and identify and formulate the requirements appropriate to its solution.*
- iii. Design and implement a computer-based system, process, component, or program to meet the needs with appropriate consideration for public health and safety, cultural, societal and environmental Considerations.*
- iv. Use research - based knowledge and research methods to derive valid conclusions for complex problems.*
- v. Use current techniques and modern tools necessary for computing practice i.e. for presentation and report.*
- vi. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional IT practice.*
- vii. Examine the impact of professional engineering solutions in societal and environmental contexts and demonstrate the knowledge of and need of sustainable development.*
- viii. Understand professional, ethical, legal, security and social issues and responsibilities.*
- ix. Function effectively individually and on teams, including diverse and multidisciplinary, to accomplish a common goal.*
- x. Communicate effectively with a range of audiences in various formats.*
- xi. Recognize and engage in continuous professional development.*
- xii. An ability to understand engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects.*

Wireless Sensor Networks and its Security Attacks

Basically, sensor networks are application dependent. Sensor networks are primarily designed for real-time collection and analysis of low level data in hostile environments. For this reason they are well suited to a substantial amount of monitoring and surveillance applications. Popular wireless sensor network applications include wildlife monitoring, military command, intelligent communications, industrial quality control etc. Majority of the sensor network are deployed in hostile environments with active intelligent opposition. Hence security is a crucial issue.

Security goals for sensor networks

As the sensor networks can also operate in an Adhoc manner the security goals cover both those of the traditional networks and goals suited to the unique constraints of adhoc sensor networks. The primary security goals are known as standard security goals such as Confidentiality, Integrity, Authentication and Availability.

Data Confidentiality

Confidentiality is the ability to conceal messages from a passive attacker so that any message communicated via the sensor network remains confidential.

Data Authentication

Authentication ensures the reliability of the message by identifying its origin. Data authentication verifies the identity of the senders and receivers. Due to the wireless nature of the media and the unattended nature of sensor networks, it is extremely challenging to ensure authentication.

Data Integrity

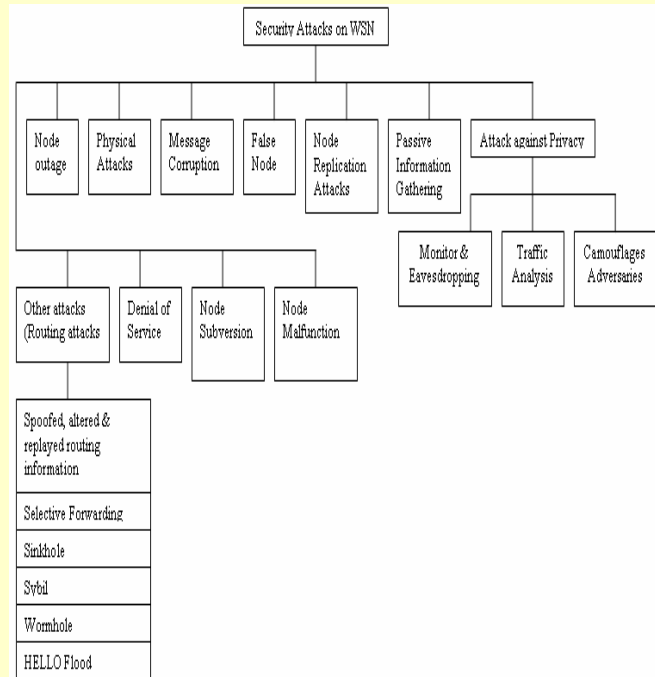
Data integrity in sensor networks is needed to ensure the reliability of the data and refers to the ability to confirm that a message has not been tampered with, altered or changed.

Data Availability

Availability determines whether a node has the ability to use the resources and whether the network is available for the messages to communicate.

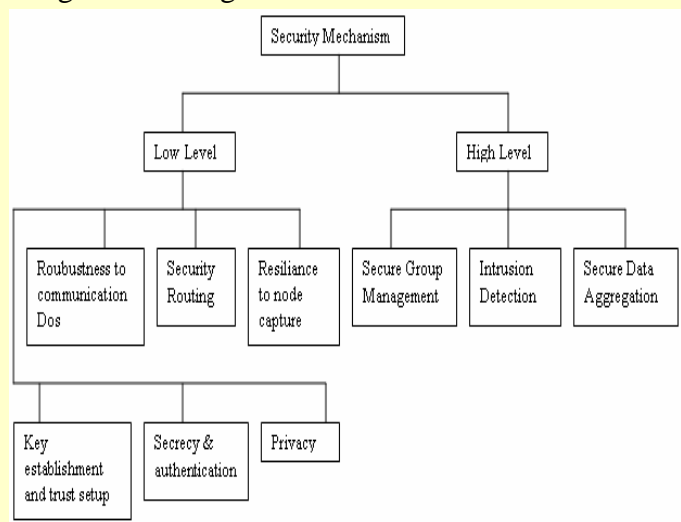
Attacks on Sensor Networks

Wireless Sensor networks are vulnerable to security attacks due to the broadcast nature of the transmission medium. Basically attacks are classified as active attacks and passive attacks.



Security Mechanisms

The security mechanisms are actually used to detect, prevent and recover from the security attacks. A wide variety of security schemes can be invented to counter malicious attacks and these can be categorized as high level and low-level.



DEPARTMENTAL ACTIVITIES

1. A 4-Day short-term training in IBM Rational SEED for Quality Program on Rational Quality Manager and Rational Functional Tester was conducted by IBM Software Engineering for Educational Development on 24-April to 27-April 2013.

2. A 2-day workshop on “Microsoft Excel” was conducted for 6 batches of MJCET Faculty during 26 April to 9-May. The following IT Department faculty members were the resource persons.

Mrs. Maniza Hijab, Co-ordinator cum Resource Person

Mrs. G.Vani, Resource Person

Mohd. Afroz, Resource Person

Md Asrar Ahmed, Resource Person

Guest Lecture on Lifetime Maximization for the Wireless Sensor Networks using video cameras

Another technical talk was organized on 15th of February, 2014 in which Dr. Andre Rossi, visiting professor for the University of Hyderabad talked on ‘Lifetime Maximization for the Wireless Sensor Networks using video cameras’. He elaborated on his research work relating the wireless sensor networks and how they can be used to their full potential



FACULTY ACHIEVEMENTS

Papers Published

1. Mrs. Maniza Hijab, “Effects of Mobile Environment Transactions Management: A Review”, International Journal of Advance Research in Electrical, Electronics and instrumentation Engineering, Vol. II issue 4 April 2013.

2. Mr. Syed Azar Ali, “Evolution of Risk- Aware Mitigation in MANET Routing Attacks”, National Conference on “Modern Trends in Computer Science & Technology” May 2013.

3. Mr. Md. Riyazuddin, ”Privacy preserving in Data Mining Techniques”, National conference on Modern Trends in Computer Science & Technology (NCMTCST-2013) at Ellenki College of Engineering & Technology, May 2013.

4. Mr. Mohd Pasha, “A Data Dissemination Model for Cloud enable VANETs Using In- Vehicular Resource”, International Conference on “Computing for Sustainable Global Development”, conducted in BVICAM, New Delhi, in March, 2014.

Ph.D Registered in 2013-2014

1. Mr. N Md Jubair Basha, Assistant Professor, has enrolled as a Ph.D probationary student at Department of Computer Science & Engineering, University of Calcutta, Kolkata in June 2013.

STUDENT ACHIEVEMENTS

1. Ms. Sumaiya Nazneen of B.E IV/IV member of Team Robocon MJCET has represented in ABU-Robocon 2014 held at Pune from 06th to 08th March 2014. MJCET also received the best manual Robot award for best man machine coordination

2. Mohammed Moyeez of B.E IV/IV Represented MJCET for Osmania University Inter College Tournament in Chess and Won Gold Medal in 2012-13 and won Player of Tournament

3. Khaja Fareeduddin of B.E IV/IV Represented MJCET for “O.U” Inter College Tournament in Swimming and won Bronze Medal.
4. Syed Abdul Kalam and Mohammad Azar of B.E II/IV Students had participated in the ASDF Project Exhibition at IITM Chennai on 8-9th March 2014.
5. Syed Mubashir Hassan (B.E 3/4) and Junaid Jalal of B.E III/IV represented Muffakham Jah College of Engineering & Technology in The ASDF – Second Global Software Development Contest V2.0 with the project “Spacewars” on 15 March 2015 at IIT-M Research Park, Chennai.



STUDENT ACTIVITIES

Adsophos 2014

Muffakham Jah College of Engineering and Technology organized its two day annual fest Adsophos which commenced with conception of creative ideas, which were nurtured with dedication, enthusiasm and sheer hard work. The department of Information and technology hosted few technical and fun events that included paper presentation, Infomaniac, Code Wars, TechTown, Math Taxi, Fast-and-Furious and Project Display. The two days were filled with intense action and enthusiasm by students. Mr. N. Md. Jubair Basha, Assistant Professor and Mrs. Farha Nousheen, Assistant Professor were the event Co-Ordinators. ACM Student chapter has taken an active role in the Adsophos'14



Envisage 2014

The Department of Information Technology, Muffakham Jah College of Engineering and Technology (MJCET) organized a Project Presentation contest Called Envisage – 2014 on 10th April – 2014 . All the students of Second and Third year B.E. Information Technology exhibited their Mini Project. Further, a few selected students of other OU affiliated College also participated in the event.

Dr. Mohammed Abdul Haque Farquad, Assoc. Prof. Dept. of CSE In-Charge, Hyderabad Cognitive Science Center, SR International Institute of Technology & Mr. Abdul Jabbar Assoc. Manager, Accenture Services Pvt Ltd, Hyderabad, India were the chief guests and judges for the event. The students were given prizes based on the projects exhibited and all the students were given participation certificates.



Student Social Responsibility

The IEEE-Computational Intelligence Society enthusiastically took part in the student social responsibility events along with the other student bodies. The CIS members participated in the STAR program with the goal of providing basic computer education to the under privileged children. The chapter was also active at the motivational campaign regarding Engineering.

ANNOUNCEMENTS

Upcoming Events

- 1 week workshop on Big Data
- Guest lectures on latest trends
- Technical Events
- Fun Events
- Industry Institute Interaction Programs for academic subjects

Call for articles

Call for articles for the next issue of INFOVOGUE Newsletter theme –Big Data.

Interested students and faculty members can submit the articles on this theme. The article will be published in the next issue of Infovogue after being checked by the editorial committee.

EDITORIAL BOARD

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 Ms. Nabeelah Azam, IV/IV-ITD

B.E. II - IV YEAR I Semester– ACADEMIC CALENDAR 2014-15

S. No.	Event / Activity	Scheduled Date
1	Commencement of Class work	21-07-2014
2	Submission of List of Students not reported up to 08-08 -2014	11-08-2014
3	Online submission of attendance up to 23-08-2014	25-08-2014 to 27-08-2014
4	Meeting / Counseling with parents of students having less than 65% of aggregate attendance up to 23-08-2014	01-09-2014 to 06-09-2014
5	Class Test I	08-09-2014 to 10-09-2014
6	Feedback	11-09-2014 to 17-09-2014
7	Distribution of Corrected Scripts of Class Test I	22-09-2014 to 24-09-2014
8	Online submission of attendance up to 27-09-2014	29-09-2014 to 01-10-2014
9	Display of Class Test I marks by the Course Coordinators	29-09-2014 to 04-10-2014
10	Issue of Progress Report, Meeting / counseling with parents of students having less than 65% of aggregate attendance up to 27-09-2014, and / or scoring less than 40% marks in Class Test I	06-10-2014 to 10-10-2014
11	Class Test II	30-10-2014 to 01-11-2014
12	Distribution of Corrected Scripts of Class Test II, Submission of Final Attendance up to 01-11-2014	03-11-2014 to 06-11-2014
13	Display of Class Test II Marks by Course Coordinators; Final Attendance and Detention List by the Department	07-11-2014
14	Last Date of Instruction	08-11-2014
15	Commencement of Practical Examination	10-11-2014 to 29-11-2014
16	Intimation of Errors and Discrepancies by Students to HODs	12-11-2014
17	Submission of Final Sessional Marks and Attendance Statements	15-11-2014
18	Commencement of Theory Examinations	01-12-2014