



## CONTENTS

Institutional Vision, Mission .....	1
Vision, Mission, PEO's, PO's of ITD.....	1
Article on Internet of Things.....	2
Departmental Activities.....	3
Faculty Achievements.....	5
Student Achievements .....	6
Student Activities.....	6
Announcements.....	7
Campus Recruitment.....	7
Academic Calender.....	8

### INSTITUTE VISION

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

### INSTITUTE MISSION

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

### DEPARTMENT VISION

*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.*

### DEPARTMENT MISSION

*To create an ambience of academic excellence through state of art infrastructure and learner-centric pedagogy leading to employability in multi-disciplinary fields.*

### PROGRAM EDUCATIONAL OBJECTIVES

- Graduates will demonstrate technical competence and leadership in their chosen fields of employment by identifying, formulating, analyzing and creating efficient IT solutions.*
- Graduates will communicate effectively as individuals or team members and be successful in varied working environment.*
- Graduates will demonstrate lifelong learning through continuing education and professional development.*
- Graduates will be successful in providing viable and sustainable solutions within societal, professional, environmental and ethical context*

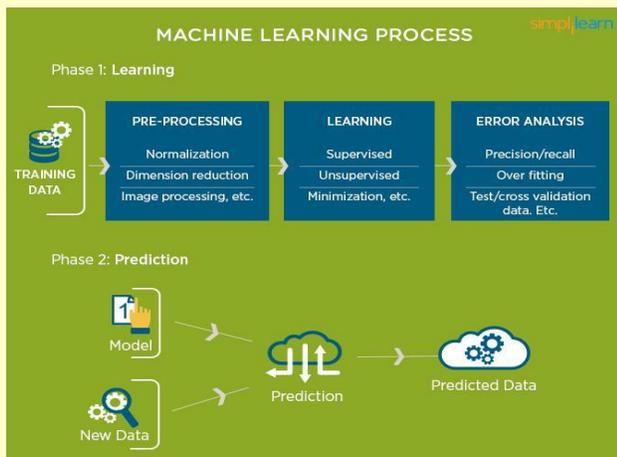
### PROGRAM OUTCOMES

- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.*
- 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.*
- 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.*
- 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.*
- 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.*
- 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.*
- 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.*
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.*
- Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.*
- 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.*
- 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.*
- 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.*

## Article on Machine Learning

Machine learning is a core sub-area of artificial intelligence as it enables computers to get into a mode of self-learning without being explicitly programmed. When exposed to new data, computer programs are enabled to learn, grow, change, and develop by themselves. In other words, it allows computers to find insightful information without being programmed into where to look for a particular piece of information. This, it does by using algorithms that iteratively learn from data.

Examples of applied machine learning: the self-driving Google car, cyber fraud detection, online recommendation engines - like friend recommendations on Facebook, movie recommendations on Netflix and offers recommendations from Amazon.



### Why Machine Learning?

With the constant evolution of the field, there has been a subsequent raise in the uses, demands, and importance of machine learning. The answer to the question as to why one has to adopt machine learning would be: ‘High-value predictions that can guide better decisions and smart actions in real time without human intervention’.

Machine learning has also changed the way data extraction, and interpretation is done by involving automatic sets of generic methods. that have replaced traditional statistical techniques.

### Uses of Machine Learning:

To understand the concept of machine learning better, let’s consider some more examples: web search results, real-time ads on web pages and mobile devices, email spam filtering, network intrusion detection, and pattern and image recognition. All these, are by-products of applying machine learning in the analysis of huge volumes of data.

Machine Learning proposes clever alternatives to analyzing huge volumes of data. It is a step forward from all of statistics, computer science and all other emerging applications in the industry. By developing fast and efficient algorithms and data-driven models for real-time processing of data, machine learning is able to produce accurate results and analysis.

Some Popular Machine Learning Methods:

1. Supervised Learning
2. Unsupervised Learning
3. Semi-Supervised Learning
4. Reinforcement Learning

Algorithms used:

1. Neural networks
2. Decision trees
3. Random forests
4. Associations and sequence discovery
5. Nearest-neighbor mapping
6. K-Means clustering
7. Self-organizing maps
8. Local search optimization techniques (e.g., genetic algorithms)

Machine learning platforms are:

1. WEKA Machine Learning Workbench.
2. R Platform.

Machine learning tools with a graphical interface include:

1. KNIME
2. RapidMiner
3. Orange
4. Waffles
5. WEKA Machine Learning Workbench

### DEPARTMENTAL ACTIVITIES

Information Technology Department has initiated Guest Lectures and Industry Institute Interactions in the academic curriculum to fill the gap between the industry and academia. These interactions are conducted as a part of the syllabus or as a part of content beyond syllabus which helps the students to understand the working of the industry. During the semester many such guest lectures and Industry Institute Interactions were conducted.

#### Effective CRM using Social Engagement and Machine Learning

The objective of the technical talk was to make students familiar with Microsoft Dynamics CRM and its use in social media platforms and use of machine learning in operationalising the services. The speakers of the talk were Bishnupriya Pradhan and Kannan Chandrasekaran from Microsoft.

The guest invited for the talk were:

- i. Mr. Lakshminarayana Merugu – Chairman IEEE Hyderabad Section
- ii. Dr. Atul Negi – Professor, UoH
- iii. Mr. Madhav Negi - Chair, Membership Drive IEEE
- iv. Dr. Naresh Kumar M – Chair IEEE Computational Intelligence Society



#### Career Opportunities and Project Trends in Emerging Technologies

The objective of the seminar was to make the students aware of the career opportunities in the market and the importance of career planning.

The talk focused on the work and learning options available for the students in the area of networking and concepts of data center. The guest speaker also showed the importance of completing final year projects with proper guidance and training.

The speaker for the talk was Mr. Aatif Hussain, CCIE (R&S/SP), CEO link Tutor and International corporate trainer.





**PAPERS PUBLISHED BY FACULTY**

1. Mousmi Ajay chaurasia, “Grapheme-to-Phoneme conversion scheme based on Joint Sequence Statistical Model using Sentence-by- sentence learning approach”, Vol. 3 Issue 7 (Part-2) July 2016 pp 88-91 International Journal of Current Engg. & Scientific Research (IJCESR) DOI: 10.21276/ijcesr 2393-8374 (Print) 2394-0697 (Online)
2. Mousmi Ajay chaurasia, “Cloud Computing: Challenges Of Security Issues”, ISSN (print): 2393-8374, (online): 2394-0697, Volume-3, Issue-8, September 2016 23-29, International Journal Of Current Engineering And Scientific Research (IJCESR)
3. Shaik Rasool, "A Study on Quality Aspects for Web Services", International Journal of Engineering Trends and Technology (IJETT), V41(4), 232-237 November 2016. ISSN:2231-5381.
4. Md. Riyazuddin, “Pattern Anonymization: Hybridizing Data restructure with Feature Set Partitioning for privacy preserving in Supervised Learning” - SPRINGER AISC series ICCII-2016 International Conference at JNTUH Conducted in May 2016. Published in Nov 2016.
5. Munavvara Tahaseen, “Comparative study of differential keyword searches over cloud data” – IJECCE journal, Nov 2016
6. Mohd Sarfaraz Ahmed, Md Ibrahim Khalilullah, MDV Prasad, “A Study On Chord Based Peer to Peer Systems For Routing Queries”, published in ELSEVIER Materials Today: Proceedings- ICAMT-Dec 2016.
7. G. Vani, “Survey on Manet Protocols”, 4th International conference on Innovations in computer Science Engineering July 2016

**FACULTY ACHIEVEMENTS**

**ENROLLMENT IN PhD**

1. Ms. Asia Sultana got admitted in JNTU.
2. Mr. Asrar Ahmed got admitted into Osmania University.

**WORKSHOP/CONFERENCE  
PARTICIPATION BY FACULTY**

1. Abdul Wajid attended One Week Faculty Development Program on Signal Processing Techniques from 15-19 November, 2016 conducted by MVSR engineering college.
2. The following faculty members attended one week FDP on Cryptography and its Applications from 19-23 Dec 2016 conducted by CSED, OU
  - i. Md. Riyazuddin
  - ii. Asrar Ahmed
  - iii. Azar Ali
  - iv. Arif Hussain
3. The following faculty members took Online STTP on Algorithms from 13 sep - 4 Nov 2016 conducted by IIT BombayX.
  - i. Maniza Hijab
  - ii. Uma N. Dulhare
  - iii. Asia Sultana
  - iv. Fouzia Sayeedunnisa
  - v. Hajera Begum
  - vi. Tahaseen Munavvara
  - vii. G. vani
4. Asrar Ahmed attended a 2- day national workshop on “practical machine learning and data science – PMLEADS” at CSED, UCE, OU on 17 Oct and 18 Oct 2016
5. Following faculty members attended a 2-day workshop on Data Analytics on 29 & 30 Dec 2016 at St. Martins Engg. College, Hyderabad
  - i. Mohd Pasha
  - ii. Md Ibrahim Khalilullah

**STUDENT ACHIEVEMENTS**

1. Md. Abdul Khader Sufi, Syed Salman of B.E. III/IV secured first position in group discussion conducted by Women in Engineering, IEEE MJCET.
2. Mohd Adil Khan of B.E I/IV secured Business Development Internship at Nearbuy
3. Syed Salman, Md. Abdul Khader Sufi of B.E. III/IV secured second position in Xtreme Hackathon conducted on August 2016.
4. Menitha magani of B.E III/IV secured tghird positin in 100 mt hurdles in inter college athletics championship held on nov 2016.
5. Tirdala nikitha, Magani Menitha of B.E II/IV and III/IV secured second position in lawn tennis in inter college tournament held on sept 2016.
6. Magani menitha of B.E III/IV secured first position in Kumite event conducted by Nayak Budokan karate Academy held on aug 2016.

**UPCOMING EVENTS**

- Guest lectures on latest trends
- Programming Languages workshop for Final years
- Technical Events
- Mock Interviews
- Industry Institute Interaction Programs for academic subjects
- Competitive Mobile App development

**CALL FOR ARTICLES**

**Call for articles for the next issue of INFOVOGUE Newsletter theme – Machine Learning**

Interested students and faculties can submit the articles on this theme. The article should not exceed 300 words and relevant to the newsletter theme of the issue. The editorial committee will scrutinize and publish the high quality articles in the next issue.

**EDITORIAL BOARD**

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ITD

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Abdullah Nouman, IV/IV (ITD)  
Uzma Anam Riaz, IV/IV (ITD)

**B.E. II, III and IV YEAR II Semester– ACADEMIC YEAR 2016-2017**

Sl. No.	Event / Activity	Scheduled Date
1	Pre-semester meeting	31-12-2016
2	Commencement of Class work	02-01-2017
3	Manual submission of attendance up to 28-01-2017	31-01-2017
4	Commencement of General Seminar	30-01-2017
5	Meeting / Counselling with parents of students having less than 65% of aggregate attendance up to 28-01-2017	02-02-2017 to 04-02-2017
6	Guest Lecture	05-02-2017 to 10-02-2017
7	Class Test I	20-02-2017 to 22-02-2017
8	Distribution of Corrected Scripts of Class Test I and Online Entry of Class Test I Marks in Assessment matrix	27-02-2017 to 28-02-2017
9	Display of I Internal Marks	02-03-2017
10	Manual submission of attendance up to 04-03-2017	07-03-2017
11	Monthly attendance up to 04-03-2017	10-03-2017
12	Feedback	13-03-2017 to 18-03-2017
13	Issue of Progress Report, Meeting / counselling with parents of students having less than 65% of aggregate attendance up to 04 03 2017 and/or scoring less than 40% marks in Class Test I	16-03-2017 to 18-03-2017
14	Final Project Review	30-03-2017 to 01-04-2017
15	Manual submission of attendance up to 12-04-2017	13-04-2017
16	ENVISAGE 2017	13-04-2017
17	Meeting / counselling with parents of students having less than 65% of aggregate attendance up to 12-04-2017	16-04-2017 to 19-04-2017
18	Display of detention and condonation list	16-04-2017
19	Class Test II	20-04-2017 to 22-04-2017
20	Last Date of Instruction	22-04-2017
21	Distribution of Corrected Scripts of Class Test II and Online Entry of marks in Assessment Matrix	22-04-2017 to 26-04-2017
22	Commencement of Practical Examinations	24-04-2016 to 06-05-2017
23	Display of Final Internal Assessment Marks, Final Attendance up to 22-04-2017	28-04-2017
24	Intimation of Errors and Discrepancies by Students to HODs	29-04-2017
25	Commencement of On line entry of Final Sessional Marks and Attendance on OU Portal	01-05-2017
26	Commencement of Theory Examinations	08-05-2017