DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Major Initiatives & Events of the department in 2017

Industrial Visit

Department of Computer Science & Engineering organised an Industrial Visit for B. Tech 2nd year students to **Huawei Telecommunications**, **Gurgaon on** 17th February, 2017.

Agenda of visit

- Seminar was conducted on the relevant ongoing projects at their organization, the technical processes involved, and current practices/standards followed, involved challenges and other related technical inputs.
- A technical session on Networking was conducted.
- Students visited to the Real time cloud centers, networking devices, wireless transmission devices.
- They also visited various other sections of the organizations that were directly or indirectly involved in the development of the end product.
- Motivational lecture was delivered to make them aware of the involved challenges & expected requirements from an employee at entry level.





Workshop on IOT

Department of Computer Science & Engineering organised a workshop for BTech 3rd year students on 18th February, 2017. The workshop was conducted by Aptron Solutions Pvt. Ltd, Noida. All the students were given the participation certificates. The contents of the workshop were as follows:

- What "the Internet of Things" means and how it relates to Cloud computing concepts
- o How open platforms allow you to store your sensor data in the Cloud
- The basic usage of the Arduino environment for creating your own Embedded projects at low cost.
- Simple LED program for Arduino.
- o How to connect your Arduino with your Android phone.
- How to send data to the Internet and talk to the Cloud

Coding Competition

Student Club-CodeRaiders

The **CodeRaiders** Programming Club of Department of Computer Science and Engineering organized an offline programming competition.it was held on **22**nd **Feb 2017** at 11:30 am in the college premises.

The event CodeRaiders was a 2 hours competition where **47 students** of 2nd year participated. The contest comprised of 3 questions from different categories of programming such as basic math, sorting, string handling etc. The event was basically to make the students familiar of the coding competitions going on in the current scenario. **Satyam Chaurasia, Rajarshi Sahu, Abhishek Singh Chauhan were winners from 2nd year.**

All participants received participation certificates and the top three teams received merit certificates for their excellent performance.



Code-e-Mania (T-Code Club)- student club

T-Code Club of Department of Computer Science and Engineering organized **Code-e-Mania** on **22/02/2017 (Wednesday) from 03:00 pm to 04:00 pm in computer lab 1**. Students of CS & IT (2nd, 3nd year) participated in this event. Students got first, second, and third rank on the basis of their performance.

The contest comprised of questions of OOPs concepts and Web Development. The aim of the event was to make the students familiar with the basic programming logics of OOPs and Java.

The top three students named **Satyam Chaurasia** IInd year 2CS, **Abhijeet Shukla** IInd year CS1, and **Abhishek Singh Chauhan** IInd year CS1 received certificates of merit for their excellent performance and other participants received participation certificates.



Workshop at IITD on High Performance Computing (HPC) on 17th Feb 2017

Following students along with Mr. Anurag Mishra attended workshop over HPC at IIT Delhi on 17th Feb 17.

- 1. Nishika Chaudhary
- 2. Ketan priyam
- 3. Sapna
- 4. Anuj upadhyay
- 5. Deepak kr Singh
- 6. Lavanya
- 7. Rajat garg



"SPEED-2017" - Student Project Exhibition organized by GD Goenka School of Engineering, Haryana

Our students won a cash prize of Rs 5000 for their project titled — "Optical Card Reader" under the category "Most Innovative Project".

Other projects from IMSEC that participated in the exhibition are as follows:

- 1. e-Dustbin:
- 2. Touchless tech for health care:
- 3. Optical card reader:
- 4. Expert System to Provide Details Of Doctor:
- 5. Smart Agriculture:
- 6. BATWING An inventory drone:

Teams were led by two of the faculty members - Mr. Vijay Singh and Mr. Mukesh Kumar. Students had an exposure to other levels of selection parameters as they were judged by experienced and experts of the departments which their projects represented.

Department cultural activity- CS Got Talent on 28th Feb 17







Workshop on IOT

Department of Computer Science & Engineering organized two day workshop for all B.Tech 3rd year students on **06 March** and **16th March, 2017** on iOT. The workshop was conducted by expert **Mr. Vineet Kumar, Mr. Shibu** & **Mr. Rajinder, Director Headstart Education**, IBM business partner, Noida. All the students of 3rd yr participated & were given the participation certificates from Headstart Ltd..

Topics

- What "the Internet of Things" means and how it relates to Cloud computing concepts
- How open platforms allow you to store your sensor data in the Cloud
- The basic usage of the Arduino
- Simple LED program for Arduino.

- How to connect your Arduino with your Android phone.
- How to send data to the Internet and talk to the Cloud.



Department Fest- Comprix 2017

CSE-IMSEC ACM student chapter under Department of Computer Sciences & Engineering organized **Comprix'17** on **6**th **March 2017**. The event has a great success with 250 participants. It was an intracollege semi technical fest. Students of various departments participated in the event. Some of the events organized were:



Google Brand Ambassador



Student of B.Tech 3rd Year Mr. Ketan Priyam Khare has been selected as Google Facilitator representing IMSEC for Applied Computer cience with Android. We will be undergoing a workshop by Google and will be responsible for organizing Google events like student workshops etc at IMSEC

Approval of Research Grant from AKTU

Research project titled 'Batwing – a multipurpose drone' has been approved by AKTU under 'Visvesvaraya Research Promotion Scheme'. Funds of Rs 430000 has been approved by AKTU.

Objective of the Project:

Objective is to build a cost effective UAV to collect water samples from various water resources including rivers, ponds, lakes etc. for its quality check and test potentially dangerous water samples. Proposed drone will be highly efficient and could be used for collecting and testing samples from reservoirs, chemical spills, wastewater plants, tailings dams and ocean oil spills. Drone will be able

to test water for a variety of parameters including temperature, pH, conductivity etc.

It can also be used to explore water resources in drought hit areas using high resolution cameras & direct feed to base stations using GPS can be done. The drone can be adapted to collect soil samples also. We also plan to use the drone for disaster management particularly for detecting forest fires.

Principal investigators:

Dr. Pankaj Agarwal and Mr. Mukesh Kr. singh



e-Yantra Idea Competition- 2017

Asmita Singh & Hemlata Sharma, B.Tech 3rd yr students submitted a project idea 'e-Dustbin' to e-Yantra idea competition 17. Their idea is selected for regional final round to be held at Conclave centre, Delhi University on 28th March 17. The students participated in the final round on 28th March 2017



Spark-2017 - Competition on iOT projects

The department of Computer Science and Engineering organized a project exhibition "SPARK-2k17" on 13th April 2017. The students of 3rd year showcased their iOT based projects. Each student's participation was mandatory. Total number of 55 projects were presented and evaluated. 50 Projects were presented by CSE students and 5 projects by IT students. Among these the best 3 projects were selected for reward and recognition.

Winners

1. First position

| 1414310013 | ABHISHEK SINGH | |
|--------------------|----------------|--------------------------|
| 1414310035 | ANJANA GUPTA | |
| 1414310072 | DOLLY UPADHYAY | Smart blind walker stick |
| 1414310162 ROHTASH | | |

2. Second Position

| 1414310001 | Akash raj srivastava | Automatic parking lot integrated with online booking |
|------------|-------------------------|--|
| 1414310003 | Aarohi sivastava | |

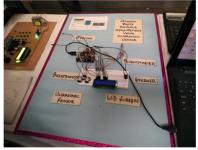
| | | akansha |
|------|---------|-----------------|
| 1414 | 4310021 | srivastava |
| 1414 | 4310031 | amrit kumar jha |

3. Third Position

| 1414310160 | ROHAN TANEJA | |
|------------|---------------|---|
| | ROHIT | |
| 1414310161 | CHAUDHARY | DISPLAY OF UNDERGROUND CABLE FAULT |
| 1414310219 | VAIBHAV | DISTANCE OVER INTERNET (IOT) OF THINGS |
| 1414310214 | TUSHAR BANSAL | |
| 1414310223 | VIDHI RASTOGI | |











Farewell to 4th year students

Students of 3^{rd} year organized a farewell for outgoing students on 24^{th} April 2017



BUDDING ENGINEER AWARDS

Awards were given to the students of CS dept for their outstanding achievements during the academic session 2016-17. Following awards were given

- A) Awards to overall top three students in University exams of ODD Semester 2016-17
- (i) 2nd Year

1st – Lokesh Kumar Tiwari (83.6%)

2nd – Shadil Khan (83.4%)

3rd – Pranshul Goel(82.0%)

- (ii) 3rd Year
 - 1st Sapna (85.6%)

2nd – Anuj Upadhyay (84.8%)

3rd – Nishika Chaudhary (84.5%)

- (iii) 4th Year
 - 1st Pranjali Aggarwal (85.4%)
 - 2nd Kartik Rastogi (82.4%)

3rd – Rajat Tiwari (82.3%)

B. Outstanding Project Award (outside college)

Project Name: "Multipurpose Drone"

- (i) Divyanshu Kumar
- (ii) Dushyant Vats
- (iii) Shagun Agarwal
- (iv) Shivam Singh
- (v) Nishant Madan
- (vi) Vishal Singh
- (vii) Vivek Chaudhary
- (viii) Vikash Kumar

C. Ketan Priyam Khare – for being selected as Google facilitator for applied computer Sc representing IMSEC

SUPER COMPUTER FOR DATA SCIENCE at IMSEC, GHAZIABAD

June 2017

IMSECSUPERCOMPUTER.HPC.ORG

IMS Engineering College becomes the first college in NCR to have its own High Performance Computer. Its outline: 28 GB RAM, 3.5 TB Hard Disk with 28 Cores along with NVIDIA GPU Cores. It is being setup by the students of IMSEC during the training under HPC program. Students have used internally existing resources (hardware) and have made desktop concentrated super computer under the supervision of Dr. Azad Shrivastava, Head & Principal Consultant & his team, Aura Emanating Technology Pvt. Ltd.

It implements parallel computing using the Message Passing Interface and also act as a platform for the Big Data and Machine Learning Applications. It delivers inflated performance and throughput over mammoth data sets. It will be profitable in enhancing the frequency and speed of calculations without delays. It can be used for countless projects of Data Science, market analysis, scientific research, Oil and Gas Industry, Weather Forecasting etc. It offers a new stream for the student's carrier and helps them in making themselves diverse from the crowd.



Faculty Development Program

(12th June – 16th June 2017)

A Faculty Development Programme (FDP) on Machine Learning & Data Analytics from 12th June 2017 to 16th June 2017 was conducted successfully at IMS Engineering College, Ghaziabad. The program was sponsored by Dr. A.P.J Abdul Kalam Technical University, Lucknow.

There were 47 participants including faculty members and Ph.D research scholars from various technical institutions across the country.

The five day long sessions were addressed by Prof. (Dr.) Satish Chand from NSIT Delhi, Prof. (Dr.) K.K Biswas from IIT Delhi, Prof. (Dr.) Azad Kumar Shrivastava from Aura Emanating Tecknology Pvt Ltd, Prof. (Dr.) Shampa Chakraverty from NSIT Delhi, Prof. (Dr.) Kusum Deep from IIT Roorkee, Dr. Biplab Baneerjee from IIT Roorkee and Dr. Yamuna Prasad from IIT Delhi. All the invited speakers shared their knowledge and explanation on the Machine learning concepts, tools, techniques and data Analytics.

Key Highlights of each session are mentioned below:

Day 1: Monday, June 12, 2017

Session 1: Basics of Machine Learning

Speaker: Prof. (Dr.) Satish Chand

- 1. What is learning?
- 2. Three theories of Learning.
- 3. Machine Learning definition
- 4. Comparison of Machine Learning with Traditional Programming
- 5. Advantages of Machine Learning
- 6. Machine Learning algorithms
- 7. Types of Machine Learning

Session 2: Machine Learning **Speaker:** Prof. (Dr.) K.K Biswas

4 84 1: 1 : 1

- 1. Machine Learning problems
- 2. Techniques used in Machine Learning
- 3. Unsupervised Learning
- 4. Bayes Decision Theory
- 5. Bayes Theorem
- 6. Generative Learning
- 7. Discriminative Learning
- 8. Gaussian Distribution
- 9. Minimum-Error Rate classification
- 10.Logistic Regression

Session 3: Artificial Neural Networks

Speaker: Prof. (Dr.) K.K Biswas

- 1. Pattern Classification Problem
- 2. Perceptron learning
- 3. Multi-layer Networks
- 4. Feed Forward Networks
- 5. Back Propagation Networks
- 6. Unsupervised learning using Neural Nets
- 7. Self organized map (SOM)
- 8. SOM algorithms
- 9. Properties of SOM model

Day 2: Tuesday, June 13, 2017

Session 1: Comparison of AI, DM, ANN & ML techniques

Speaker: Prof. (Dr.) Azad Kumar Shrivastava

- 1. Neural Networks definition
- 2. Deep Learning(DL)
- 3. Why DEEP?
- 4. Minimum requirement for ML/DL
- 5. Artificial Intelligence (AI) and Machine Learning (ML) are the same?
- 6. Natural Language Processing(NLP)- applications

- 7. Machine Learning definition
- 8. Comparison of ML & DL
- 9. Al definition- goal
- 10. Huge data by VVVVV
- 11. Supervised learning and Unsupervised learning

Session 2: Machine Learning models for Natural Language Processing(NLP)

Speaker: Prof. (Dr.) Shampa Chakraverty

- 1. NLP concepts & Use
- 2. Hidden Markov Model(HMM)
- 3. HMM problems
- 4. Trellis representation of HMM
- 5. Forward Recursion of HMM
- 6. Backward Recursion of HMM
- 7. Viterbi Algorithm- Maximum Likelihood
- 8. Baum-Welch Algorithm
- 9. HMM tools & leraning

Session 3: Metaphor Detection using Conditional Random Fields

Speaker: Prof. (Dr.) Shampa Chakraverty

- 1. Metaphor definition & types
- 2. Flow chart for Metaphor Detection
- 3. Syntax format for Metaphor Detection
- 4. Conditional Random Fields(CRF)
- 5. HMM vs CRF
- 6. Comparison of CRF based Metaphor Detection with traditional algorithms.

Day 3: Wednesday, June 14, 2017

Session 1: Nature-inspired Organization Techniques

Speaker: Prof. (Dr.) Kusum Deep

- 1. Non-linear optimization problem
- 2. Local optimal solution, Global optimal solution
- 3. Bench Mark Function
- 4. Literature Review Approaches: Deterministic & Probabilistic Approach

- 5. Nature Inspired methods
- 6. Comparison of Nature-inspired Algorithm and Traditional Algorithm
- 7. Monte Carlo Simulation
- 8. Random Search Techniques
- 9. Ant Colony Optimization
- 10. Darwin's theory of Evolution
- 11. One cycle of Genetic Algorithm(GA)
- 12. Genetic Algorithms operators
- 13. Comparison of GA and traditional methods
- 14. Most Common Selection operator
- 15. Tournament Selection, Roulette Wheel Selection
- 16.Crossover, Mutation
- 17. Artificial Bee Colony(ABC)

Session 2: Particle Swarm Optimization (PSO) and its Applications

Speaker: Prof. (Dr.) Kusum Deep

- 1. PSO definition & examples
- 2. Formula for Swarm movement position and Velocity update equation
- 3. Basic Flow of PSO
- 4. Computational steps in PSO
- 5. Initialization of Swarm
- 6. Scaling within specified range in PSO
- 7. Evaluation of fitness
- 8. Comparison of PSO and GA
- 9. Determination of hypocentral parameters using shrinking hypersphere particle4 swarm optimization
- 10. Concept of hypersphere and Global hypersphere
- 11. New velocity update equation for particle generation in PSO

Session 3: Sentiment Analysis

Speaker: Prof. (Dr.) Azad Kumar Shrivastava

- 1. Sentiment Analysis definition
- 2. Opinion mining
- 3. Aim of sentiment analysis
- 4. Sentiment Analysis on Social Media with Deep Learning

- 5. Maslow's hierarchy of Needs
- 6. Social media hierarchy of Needs
- 7. Research area of Opinion mining
- 8. Application of Sentiment Analysis
- 9. Sentiment Detection
- 10. Two types of opinion: Regular opinion and Comparative opinion
- 11. Comparison of Sentiment Analysis and Subjectivity Analysis
- 12.Lexicon-based Model
- 13. Levels of Sentiment Analysis
- 14. Components of Sentiment Analysis
- 15. Existing tolls for Sentiment Analysis
- 16. Opinion Spam Detection
- 17. Forms of Opinion Spam
- 18. Fake review Detection

Day 4: Thursday, June 15, 2017

Session 1: CNN – Some intrinsic ideas

Speaker: Dr. Biplab Baneerjee

- 1. Back-propagation-multi layer Feed Forward Neural Networks
- 2. Concepts of Neural Networks
- 3. Problems in Neural Networks
- Concept of Loss function to regularize the error rate in Neural Networks(NN)
- 5. Backward pass hidden to output layer
- 6. Backward pass intermediate layer
- 7. Vanishing Gradient problem in NN
- 8. Bias-variance tradeoff
- Convolution Networks(Convnet)
- 10. Image Recognition
- 11. Extract Feature: Color histogram, Edge distribution and Interest point
- 12. Comparison of RELU and CONV
- 13. Structure of Convnet
- 14. Fully Connected layer in CNN

Session 2: CNN – some intrinsic ideas

Speaker: Dr. Biplab Baneerjee

- 1. Pooling concept in CNN
- 2. Conv-Relu-Pool layer function
- 3. Deconvolution networks
- 4. Object Recognition
- 5. CNN models
- 6. Alexnet model, VGGNet Model, Rosnet Model, Googlenet Model
- 7. Concept of Auto-encoder
- 8. Principal Component Analysis(PCA)
- 9. Correlation, Covariance and Eigen decomposition in PCA
- 10. Types of Auto-encoder
- 11.Stacked Auto-encoder
- 12. Sparse Auto-encoder
- 13. Denoising Auto-encoder
- 14. Similarity between Auto-encoder and PCA
- 15.Concept of RNN
- 16.Basic RNN model
- 17.LSTM model
- 18. Gate structure in LSTM model
- 19.BPTT(Back-propagation through time) model
- 20.RBM model

Session 3: R tool

Speaker: Mr. Siddartha Dutta

- 1. What do we do in Modeling?
- 2. Modeling definition
- 3. Steps in Machine Learning
- 4. Eco System in Analytics
- 5. Working on R tool
- 6. Sum, Mean command in R tool
- 7. Operators in R
- 8. Decision loop in R
- 9. Functions in R
- 10.R charts/graphs

Day 5: Friday, June 16, 2017

Session 1 & 2: Tools on Deep Learning

Speaker: Dr. Yamuna Prasad

- 1. Various tools for deep learning
- 2. Theano tool for deep learning
- 3. Python packages for deep learning























Industrial summer training programs conducted at

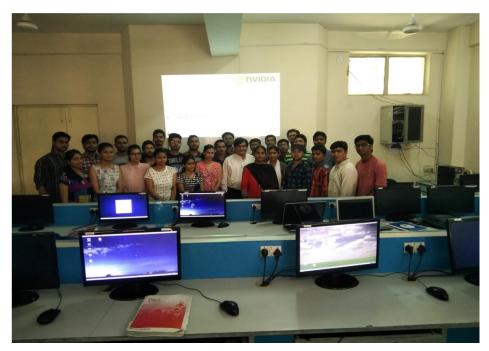
IMS Engineering College, Ghaziabad

June 2017

Following summer training programs of one month were conducted at IMS engineering college during June 2017

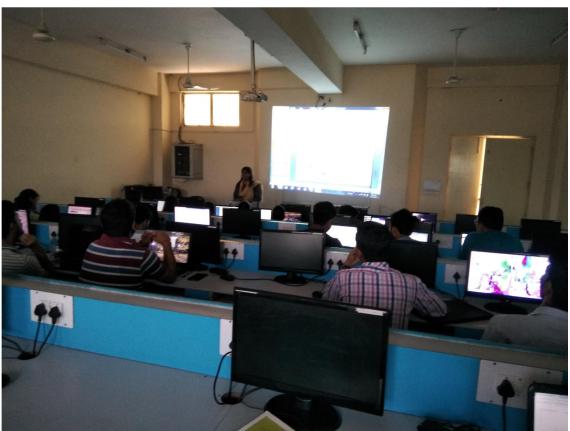
- Industrial training on "High Performance Computing & GPU computing" in collaboration with Aura Emanating Technology Pvt. Ltd, New Delhi.
- Industrial training on "Machine Learning & Data Analytics" in collaboration with LearnKart technology Pvt. Ltd, Bangalore
- Industrial training on "Big Data with IBM Tools" in collaboration with IBM Business partner
- Industrial training on "Cloud Computing" in collaboration with IBM Business partner

These training programs were aimed to prepare the students on latest technologies in Computer Science & Engineering as per the demands of the current IT industry. More than 100 students participated in these training programs. Students are now involved in developing a real time projects.









Student Publications (outcomes of student projects under the Supervision of faculty)

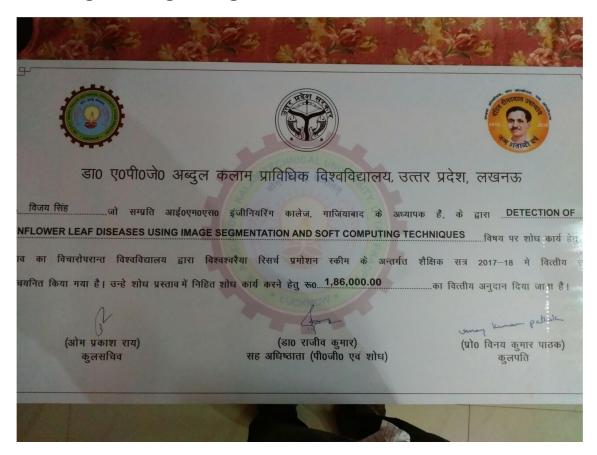
- 1. **Anurag Mishra**, Piyush aggarwal, Rohit Chaudhary, "**River Pollution Detection Using Google Maps**", *Proceedings of the 10th International Conference on Theory and Practice of Electronic Governance ICEGOV'17*, Pages, 117-122 ,New Delhi, India 2017 (also available in ACM Digital library)
- Utkarsh Rastogi, Rajat Tiwari, Srishty Suman, "Stereocam 3D", International Journal of Scientific Research in Computer Science Engineering and Information Tehnology, VOL-2 ISSUE 2, ISSN: 2456-3307, 2017.
- Ajay Saini, Aviral Modi, Vinita Chauhan; "CR Judge: A Webapp To Judge Source Codes", International Research Journal of Engineering and Technology (IRJET), Vol 4 ISSUE 4, E- ISSN 2395-0056, P- ISSN 2395-0072, APRIL 2017.
- Gaurav Singh, Akshay Shukla, Dr. Avdhesh Gupta; "Data Sharing using AES", International Journal for Scientific Research & Development; Vol 5 issue 3, ISSN 2321-0613, April 2017
- Ashu Sharma, Ayush Dixit, Brij Upadhyay, "Online Compiler", International Research Journal of Engineering and Technology, Vol 4, ISSUE 5 e- ISSN 2395-0056, MAY 2017
- Vasu Rastogi, Mangla Prasad, Kushagra Pandey, Vinita Chauhan, "Predictive Maintenance Using AWS", International Journal for Scietific Research & Development (IJSRD), VOL 5 ISSUE 2, ISSN 2321-0613, May 2017
- 7. Purvi Agarwal, Pranjal Gautam, Anmol Agarwal, Vijai Singh, "Human Follower Robot Using Kinect", International Research Journal Of Engineering And Technology (IRJET), VOL 4 ISSUE 4, e- ISSN 2395-0056, p- ISSN 2395-0072, APRIL 2017
- Mohd. Kamran, Nishant Agarwal, Karan Singh Gautam, Anurag Mishra, "Time to Go
 -An Andoid app to estimate the arrival time of vehicle", International Journal For
 Scietific Research & Development, Vol 5 ISSUE 2, ISSN 2321-0613, May 2017
- Aman Kumar, Nikhil Tiwari, Prakhar Gupta, Dr. S.N. Rajan, "Woman Crime Prediction", International Journal for Scientific Research & Development, Vol 4 ISSUE 4, e- ISSN 2395-0056, p- ISSN 2395-0072, APRIL 2017
- 10. Rishi Mohan Awasthi, Rishi Kumar, Raghav Garg, "Data handling using Oracle data guard by the transfer of log sequence", International Journal For Esearch N Applied Science & Engineering Technology, VOL-5 ISSUE IV, ISSN: 2321-9653, APRIL-17

- 11. Aayush Rohila, Dishika Garg, Harshita Agarwal, Pranjali Aggarwal, Dr. Pankaj Agarwal, "Short -Term Load Forecasting Using Ann Technique", International Research Journal of Engineering And Technology; Vol 4 Issue 4, ISSN 2395-0072, April 2017
- 12. Sauhard Nandan Chaurasia, Parth Sharma, Mr. Vivek Jain, "Analysis of web log server files of E- commerce website to study customer behaviour Patter", International Journal For Research In Applied Science & Engineering Technology, Vol-5 ISSUE IV, ISSN: 2321-9653, APRIL-17
- Aman Gupta, Aditya Mehrotra, Rishabh Arora, "Data Security in Cloud using Stenography", International Research Journal Of Engineering And Technology, Vol-4 ISSUE 04, ISSN: e-2395-0056, P-2395-0072, April-17
- 14. Shubham Sharma, Shubranshu Kumar, Lipika Goel, "Indian Crime Data Analysis Using Hadoop", International Journal for Research & Development In technology, VOL-7 ISSUE 5, ISSN (O) 2349-3585, May 2017
- Nabeel Khan, Tarun Kumar, Syed Imtiyaz Rizvi, S.N. Rajan, "Bigdata Analysis on Various socioeconomic factor for Asian Sub-Continent", International Journal For Research & Development In Technology, VOL-7 ISSUE 4, , ISSN (O) 2349-3585, April 2017
- 16. Abu Aamir Ansari, Anubhav Singhal, Lipika Goel, A Generic Framework for Automation Testing Using Slenium, International Research Journal Of Engineering and Technology, VOL 4 ISSUE 4, e-ISSN 2395-0056, APR-2017
- 17. Shashank, Nishant Parkey, Shruti Keshri, "An introduction to Optical Character Recognition", International Journal For Research In Applied Science & Engineering Technology, Vol-5 Issue-5, ISSN:2321-9653, May 20017.
- 18. Navneet Kumar Gautam, Kumar Saurabh, Suyash Johri, Tarun Chaudhary, "Review on IOT based design system for checking atmospheric habitability", International Journal For Research In Applied Science & Engineering Technology, Vol-5 Issue V, ISSN:2321-9653, May-2017

Research Fund

Fund of Rs 1.86 lakhs from AKTU for the project titled "Detection of Sunflower leaf diseases using image segmentation and softcomputing" is granted to CSE dept, IMSEC under Visvesverya research promotion scheme in Aug 2017.

Principal Investigator: Vijai Singh, Asst. professor, CS dept, IMS Engineering College

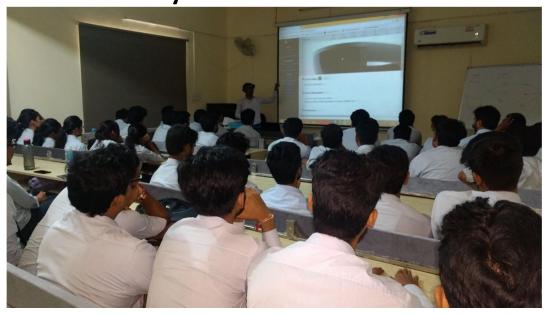








Industrial Visit Aug 2017 MCN Software Solutions, Noida 12th Aug 2017 For B.Tech 3rd yr students









Momagic Solutions Noida 12th Aug 2017 For B.Tech 3rd yr students







