

insightIT

Department of Information Technology

Bi-Annual Magazine

Jan./June, 2018
Volume 3, Issue 2



Estd. 2000

ABES
Engineering College

Message from Director

The department of IT at ABES Engineering College, Ghaziabad has been progressing at an exponential rate since its inception in year 2000. Many notable achievements have been recorded since then. This newsletter is a medium, first of its kind, will bridge the gap between achievements and publicity. Activities published—that too not all—in the newsletter are sufficient to prove my claim. All credits and thanks go to the dedicated faculty members and their team work.



Prof. Gajendra Singh

Message from HOD-IT



Dr. Amit Sinha

I am proud to say that the department is striving hard towards the goal of providing innovative and quality education with high standard to achieve academic excellence. The current issue of *InsightIT* is the witness of 6 FDPs funded by Dr. APJ AKTU under TEQIP III. These FDPs were conducted in such a sequence that each program was an extension of the previous one. I appreciate the work of creative editor of this issue and hope this will be accepted as per your expectations. The suggestions and ideas are welcomed and can be sent to the editor. The department is accredited by National Board of Accreditation for three years is one of the major achievements of this semesters and we are increased by 60 more intake. I hope this issue definitely provides another feather in cap.

Message from Editor

It is my immense pleasure that I was given the opportunity to work on the first issue on Vol. III of the department magazine 'Insight IT'. As we know, a magazine mirrors a department & its Vision & Mission. It also highlights events, activities and academic achievements of the students and faculty members. In this issue, we have tried to include last six months achievements and the activities, projects, publications and technical events. I would like to thank my colleagues and the students for their everlasting support in creation of this issue. I do hope that the magazine will give message for motivation to the students to use it as a platform to present their creativity and ideas. We welcome all valuable suggestions for continuous improvement of upcoming issues.



Mr. Pankaj Sharma

Vision

The Department of Information Technology endeavors to be recognized globally for outstanding education and research leading to well qualified engineers, who are innovative, entrepreneurial and successful in advanced fields of Information Technology to cater the ever changing industrial demands and social needs

Mission

To create a healthy environment for the development of innovative professional and researchers to fulfill its commitment to research and education of the highest quality with industry requirement and social acceptance at large.

FDP Conducted

The Department of Information Technology has conducted six faculty development programs:

FDP 1 (19th - 23rd February, 2018):
“Natural Language Processing”

FDP 2 (12th – 16th March, 2018):
“Machine Learning”

FDP 3 (23rd - 27th April 2018):
“Cyber Forensic and Cyber Crime”

FDP 4 (7th - 11th May, 2018):
“Modelling and Simulation”

FDP 5 (28th May to 1st June, 2018):
“Wireless Sensor Networks”

FDP 6 (9th - 13th July, 2018):
“Pattern Recognition”

The FDPs were sponsored by Dr. APJ AKTU under TEQIP III. Each session (total 30 hrs per FDP) full of knowledge and delivered by eminent speakers of various reputed institutions like Delhi University, CDAC, Noida, BIT Noida, Amity University etc.

1. Natural Language Processing

Natural Language Processing is one of the important aspects of software Development and research work. Various topics of NLP had been covered such as Text Pre-processing, Lexical Analysis, Syntactic Parsing & Semantic Analysis and Implementation of various Algorithms for NLP. The experts from different institutions delivered their talk and provided hands on practice.



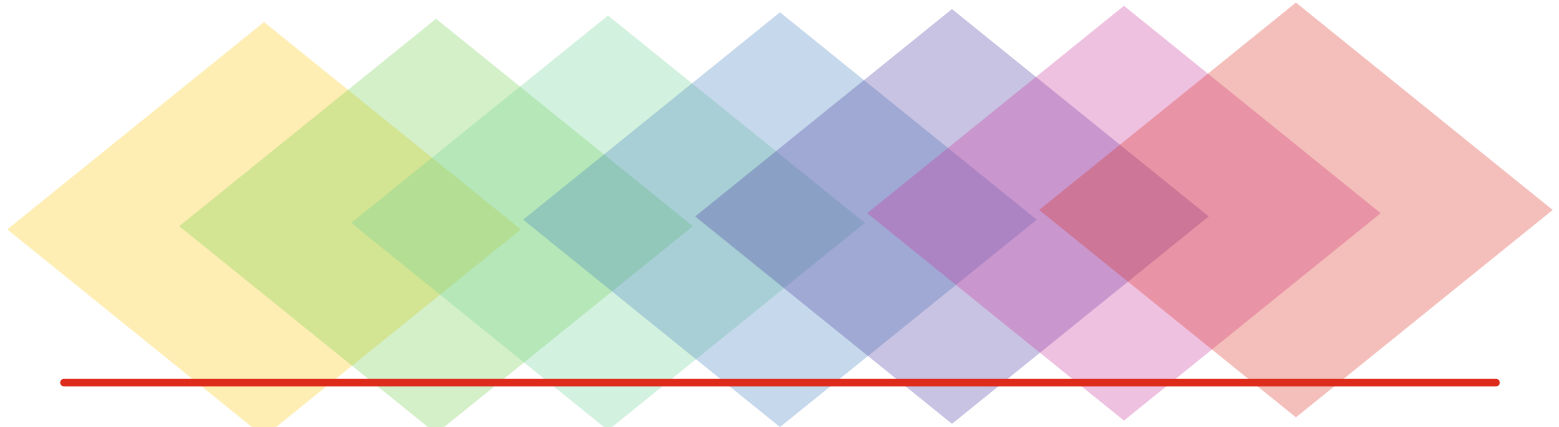
Guests and speakers during FDP on Natural Language Processing

2. Machine Learning

The objective of FDP is to present recent trends and applications of machine learning. This area is of utmost importance as there is a significant and growing demand of AI professionals and researchers in businesses, public agencies and non-profits organizations. Topics discussed in the FDP were unsupervised, Supervised Learning Algorithms, Deep Learning, Big Data, Analytics using Hadoop and Python.



Ms. Shilpi Sengupta during FDP on Machine Learning





Valedictory Session of FDP on Machine Learning



Valedictory Session of FDP on Modeling and Simulation

3. Computer Forensics and Cyber Crime

The Computer Forensic is the application of investigation and analysis techniques to gather and preserve evidence from a particular computing device in a way that is suitable for presentation in the court of laws, types of cyber crime, cyber laws and current issues in cyber laws.



Memento to Dr.Sunil Pandey during FDP on Computer Forensics and Cyber Crime

4. Modeling and Simulation

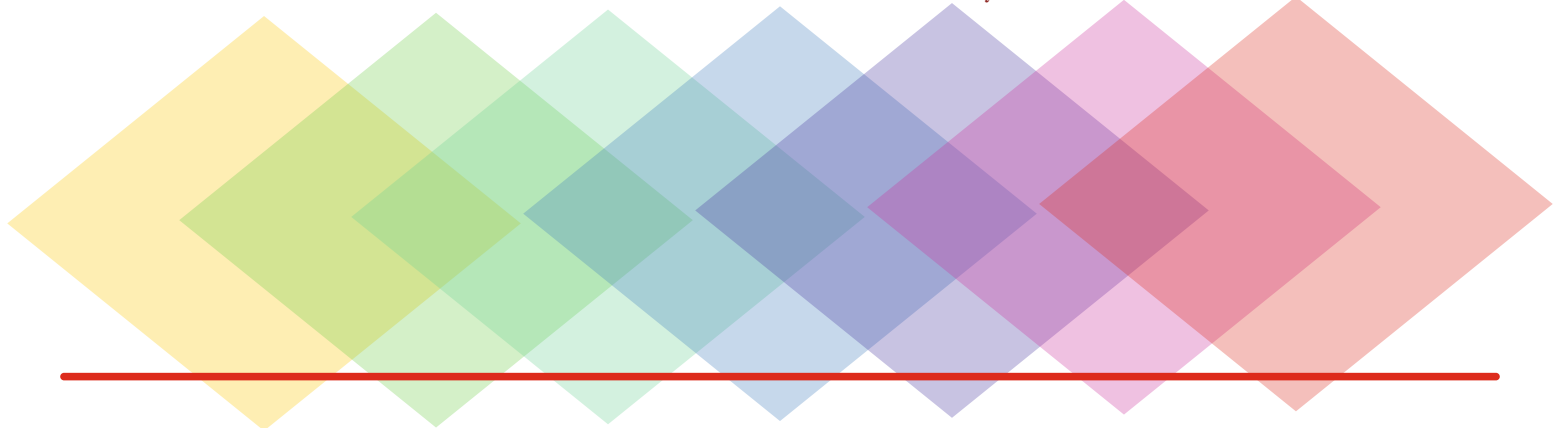
The modeling is the process of producing a model, a model is a representation of the construction and working of some system of interest. The major topics in the FDP were Introduction to system, modeling and simulation, dynamic system modeling and simulation using MATLAB.

5. Wireless and Sensor Networks

Wireless sensor network (WSN) refers to a group of spatially dispersed and dedicated sensors for monitoring and recording the physical conditions of the environment and organizing the collected data at a central location. The major topics in the FDP were Wireless Adhoc and Sensor Networks, Routing Issues in WSN, Routing Protocols for Adhoc Networks, IoT Platform SENSEnuts, Simulating Computer Communication Networks using NS2/ OMNeT++, etc.



Valedictory Session of FDP on Wireless and Sensor Networks





Valedictory Session of FDP on Wireless and Sensor Networks

6. Pattern Recognition

Pattern recognition is a branch of machine learning that focuses on the recognition of patterns and regularities in data, although it is in some cases considered to be nearly synonymous with machine learning. The major topics discussed were introduction to pattern recognition, association mining, behavior of blackhole attack, gray hole attack and JellyFish attack. During the session Bayes rule, Bayesian Threshold and Maximum Likelihood, metric for Classification: Mean, Standard Deviation and Mahalanobis Distance, etc. were also discussed. Hands on session on tensor flow were conducted.



Valedictory Session of FDP on Pattern Recognition

The above FDPs were a great success and benefitted the faculty members and all participants with knowledge and research area insights. Hands on practice in practical laboratory sessions in various languages and tools helped in terms of implementation.

Faculty Academic Pursuits

1. Ms. Shelley Gupta has registered the PhD, at Amity University, Noida.
2. Ms. Swati Goel has registered the PhD, at Bennett University, Greater Noida.

Certification

Mr. Naveen Garg, lab assistant has completed the CCNA certification classes.

ACM DSP (Distinguish Speaker Program)

Department of information Technology organized a one day ACM DSP titled "Predicting Wins and Spread in the Premier League Using Sentiment Analysis of Twitter" on 13th March, 2018.

The speaker of the program was Prof. Robert P. Schumaker, University of Texas, Taylor, Dallas. He is an American academic and Associate Professor of Computer Science at the University of Texas at Tyler. He is best known for creating the AZF in Text textual financial prediction system. He is also a Sports Analytics expert.

Upcoming Events

1. The Department of Information and Technology has planned to organize a FDP under ACM Chapter.
2. The Department of Information and Technology has planned to organize events under Talentrove.

Technical Corner

ABES ACM - W and ACM Student Chapter

Under the ABES ACM-W and ACM Student Chapter a two day event 'Tech – a Tour 2' was organized from 17 – 18 April'18. The major event in 'Tech- A-Tour' were:

Event 1:

Doodle Art

Doodle art was a chance for participants to use their imagination and share their doodling skills.

Event 2:

Apti Q

AptiQ was an online aptitude in which the participants were asked to solve quantitative ability, logical reasoning and verbal ability questions.

Event 3:

Mini Militia

Mini Militia was a shooting game which consisted of 3 members in each team. Each team compete with each other using their mobile phones.

Event 4:

Amazing Race'18

It consist of two event Riddle Island and Treasure Hunt.

RIDDLE ISLAND:

It was a fun event including two members in each team. They had to guess the movie by the hints given by the representatives.

TREASURE HUNT:

It was a fun event consisting of four members in each team. Each team had to reach the final destination by guessing all the hints to reach the destination.

Event 5:

Blind Coding

Blind coding consists of 2 rounds Debugging and Blind Coding.

Debugging:

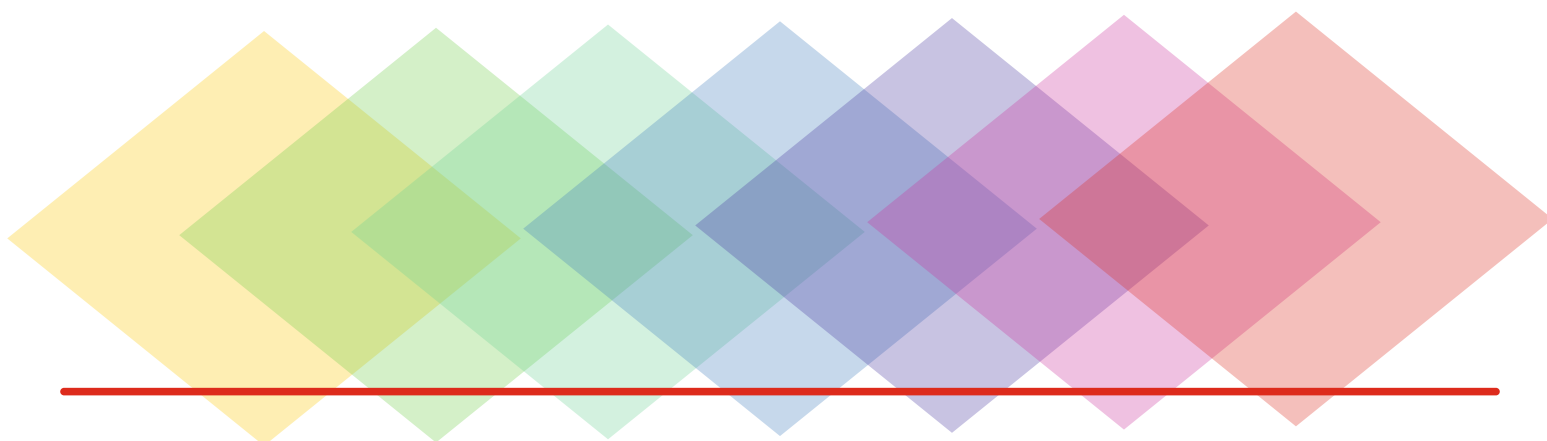
The participants were asked to debug the code.

Blind Coding

The participants were asked to code with the monitor screen off. They only had chance to turn on the screen twice for 10 seconds for each question. There was deduction of 2 marks from their score every time they turn on the screen.

The event was also facilitated by cash prizes and certificates. The prizes win by the student of Department of Information technology are:

İ PÑÑÖPÍ MÖ Ñ	KÑMÖC Branch	İ ÖÑ	İ ÖÖP
İ MÑMÖGÖP	3 rd / IT		Doodle Art
Priyanshi Agarwal	3 rd / IT		Doodle Art
Sachin Sharma Sandeep Pradhan Sahil Gupta	2 nd / IT	1 st	Mini Militia
Rohit Bhardwaj Vishesh Gupta Prashant Agarwal	2 nd / IT	2 nd	Mini Militia
Naman Saxena Mayank Gupta	3 rd / IT	1 st	Amazing Race' 18



Pat on the back

1. NBA

Department of Information Technology programme is NBA accredited in 19th Jan-2018 for two academic years.

Following are some of the observations made by NBA expert team:

- ✘ The Institute achieved an impressive record of 1st year result and stood first in University ranking.
- ✘ Excellent student enrolment
- ✘ Good academic ambience/learning environment
- ✘ Good infrastructural facilities, laboratories and green cover
- ✘ Clean, neat, tidy and well maintained campus
- ✘ Good Library, Sports and Hostel facilities
- ✘ Good academic initiatives through centres of learning namely; centre for applied research and entrepreneurship, centre for building skills and employability, curriculum, teaching learning process, start-up labs, COE in automobiles etc.
- ✘ Impressive 1st year result for three consecutive three years from 2014-15 and stands first in the University Rank
- ✘ Placement and Training activities are good
- ✘ Good number of FDPs, Workshops and Guest Lectures etc.
- ✘ Good hardware infrastructures for Lab and Internet facilities
- ✘ The seats has been increased from 120 to 180.

2. Dr. Amit Sinha has been honored as Chartered Engineer (India) by Institution of Engineers, Kolkata.

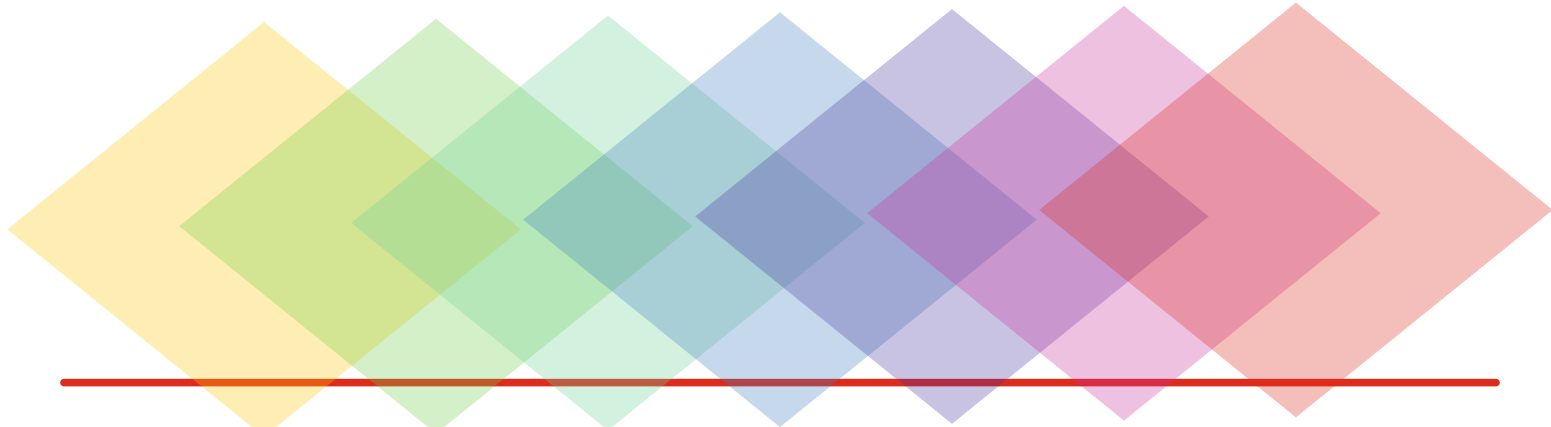
'Aisha' - Research Group

'Aisha' - Research Group

- ✘ A research group 'Aisha' has been established in collaboration with Bennett University, Greater Noida. Mr. Pankaj Sharma and Mr. Ashwin Perti are Lead Person and Faculty Member respectively of this group from ABESEC.
- ✘ Mr. Pankaj Sharma and Mr. Ashwin Perti completed a hands on workshop on "Artificial Intelligence and Deep Learning conducted by leading India.ai.
- ✘ Mr. Pankaj Sharma and Mr. Ashwin Perti get certified from NVIDIA, Deep Learning Institute in Image Classification with Digits, Object Detection with Digits, etc.
- ✘ Ten students from the department completed industrial Internship under leading India.ai initiative.

Faculty Research Papers

- ✘ Singh, Yash Veer et.al. "A Hybrid Approach for Requirements Prioritization using LFPP and ANN" accepted at International Journal of Intelligent Systems and Applications, on 12th July 2018.
- ✘ Singh, Yash Veer, et.al. "A novel Approach of Requirements Prioritization using logarithmic fuzzy trapezoidal approach for Enhancing Academic Library Services" accepted in IEEE Conference "ICACCCN-2018" on Oct 2018.
- ✘ Mr. Pankaj Sharma, et.al. published the paper titled, "Development of An Intelligent MANET System Model for Detection and Prevention of Anamoly using ANFIS" in International Journal of Mechanical Engineering & Technology (IJMET), Volume 9, Issue 3, March 2018, pp. 301–312; ISSN Print: 0976-6340 and ISSN Online:0976-6359.



- ✧ Dr. Santosh Kumar Gupta, et. al. published the paper titled, “Web Structure Mining Algorithms: A Survey”, In: Aggarwal V., Bhatnagar V., Mishra D. (eds) Big Data Analytics. Advances in Intelligent Systems and Computing, vol 654. Springer, Singapore, [Big Data Analytics](#) pp 305-317, 2018, Online ISBN: 978-981-10-6620-7, Print ISBN 978-981-10-6619-1, DOI<https://doi.org/10.1007/>
- ✧ Dr. Santosh Kumar Gupta, et. al., published the paper titled, “A Survey on Scheduling Algorithms for Parallel and Distributed Systems”, In: Mishra A., Basu A., Tyagi V. (eds) Silicon Photonics & High Performance Computing. Advances in Intelligent Systems and Computing, vol 718. Springer, Singapore, 2018.
- ✧ Dr. Santosh Kumar Gupta, et. al., published the paper titled “Web Documents Prioritization Using Iterative Improvement”, In: Bhattacharyya P., Sastry H., Marriboyina V., Sharma R. (eds) Smart and Innovative Trends in Next Generation Computing Technologies. NGCT 2017. Communications in Computer and Information Science, vol 827. Springer, Singapore, DOIhttps://doi.org/10.1007/978-981-10-8657-1_35, Publisher Name: Springer, Singapore, Print ISBN:978-981-10-8656-4, Online ISBN:978-981-10-8657-1, 2018

FDP/Workshop attended by faculty members

1. FDP in ABESEC

The Faculty Development Program programs attended by the faculty of Department of Information Technology are:

- ✧ “Natural Language Processing” from 19th February to 23rd February, 2018.
- ✧ “Machine Learning” from 12th March to 16th March, 2018.
- ✧ “Cyber Forensic and Cyber Crime” from 23rd April to 27th April 2018.
- ✧ “Modelling and Simulation” from 7th May to 11th May, 2018.

- ✧ “Wireless Sensor Networks” from 28th May to 1st June, 2018.
- ✧ “Pattern Recognition” from 9th July to 13th July, 2018.

2. FDP attended outside AESEC

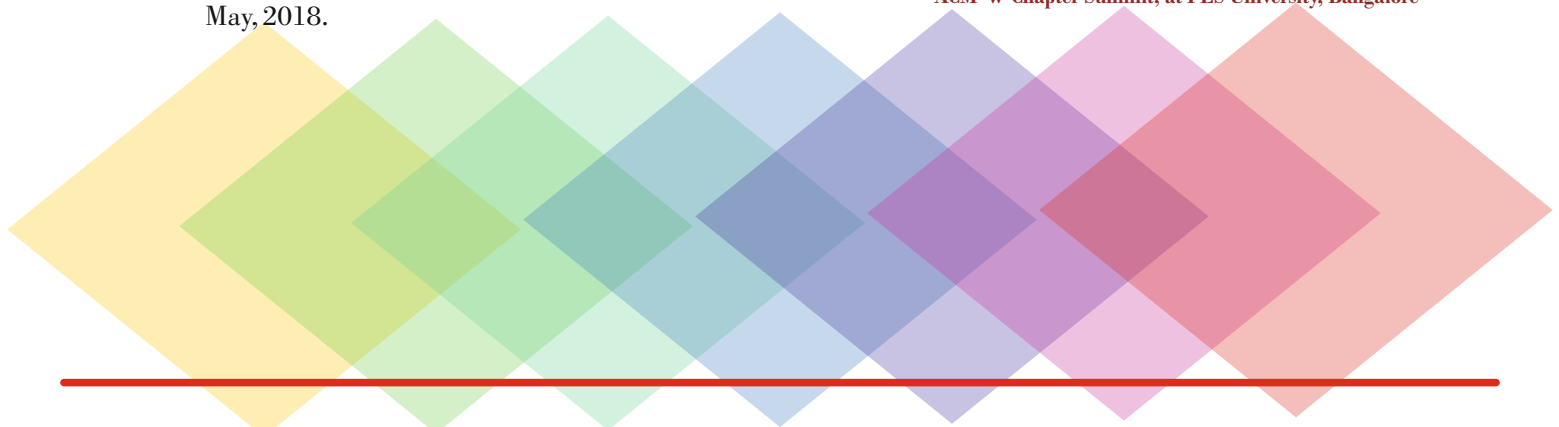
- ✧ Ms. Nandita Goyal and Ms. Perna Bhardwaj attended the FDP on “Cloud services and infrastructure” at NIET, Greater Noida.
- ✧ Mr. Jitendra Chauhan attended the FDP on “Intellectual Property Rights” at KIET, Ghaziabad.
- ✧ Mr. Ritin Behl attended two days Faculty Development program on " Introduction to Internet of Things" conducted by ICT academy on 29th - 30th Jan 2018 at Rajdhani College , Delhi .

3. ACM-W Chapter Summit- Bangalore

The event was organized from 28 - 29 June, 2018 at PES University, Bangalore. In this, Dr. Kanika Gupta as the faculty member and Ms. Anshu (Batch 2015 – 2019), Chair of ABES ACMW Chapter and Ms. Krati Taneja (Batch 2015 – 2019), Vice Chair of ABES ACMW Chapter. They presented the highlights of ACM-W chapter of ABESEC. They also showcased the ABESEC ACM-W chapter's initiative and objective to encourage women in computing field.



ACM-W Chapter Summit, at PES University, Bangalore





ACM-W Chapter Summit, at PES University, Bangalore

Summer School

The Department of Information Technology, ABES Engineering College, Ghaziabad has organized summer school on module "Data Analytics Using Python" and "Oracle/SQL Training" from 7th to 23rd June, 2018.

- i. Topics covered in Data Analytics Using Python module were:
 - ✧ Python Basics
 - ✧ Data accessing using files
 - ✧ Conditional statements on data
 - ✧ Challenges in data handling
 - ✧ List and dictionary operations
 - ✧ Functions in Python
 - ✧ Social media data analytics
- ii. Topics covered in Oracle PL/SQL module were:
 - ✧ Database Architecture
 - ✧ Configuration of Oracle Database Software
 - ✧ Working with oracle database and Managing its Instance
 - ✧ Managing Storage Structures
 - ✧ Working with User Security
 - ✧ Creating & Managing Schema Objects

iii. Attraction of this Summer School were:

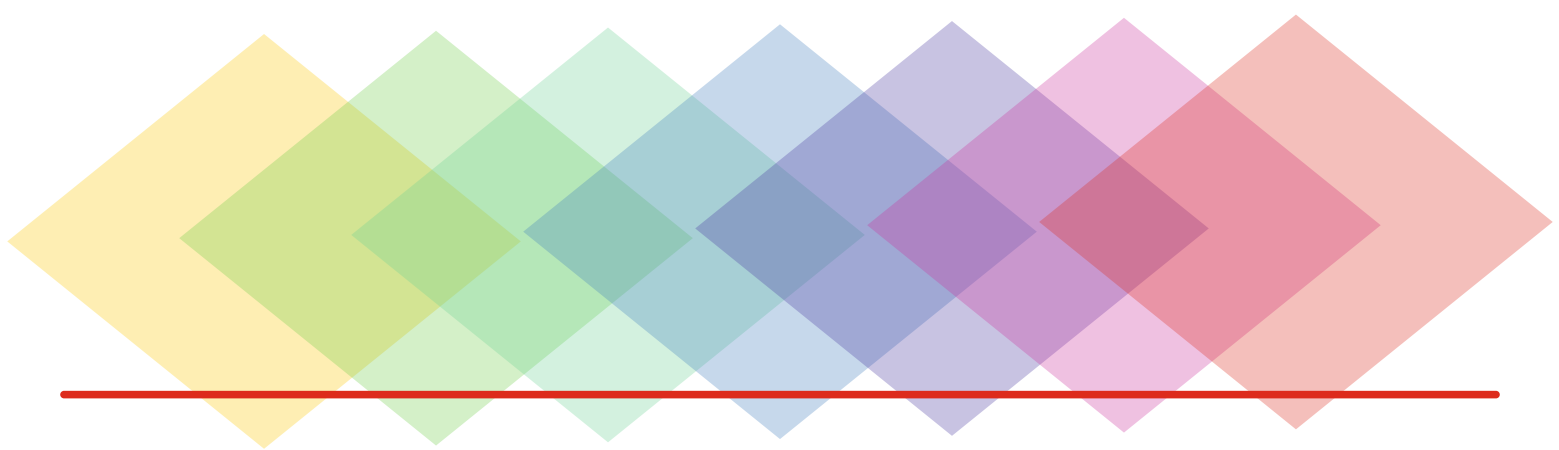
- ✧ In-depth understanding of concepts & their implementation
- ✧ Hands on Practice Sessions and Quizzes
- ✧ Industry tie-ups for the courses
- ✧ Extremely helpful in Industrial Placement
- ✧ Weekly competitions and prizes
- ✧ Well-designed certificate for all the participants



Summer School 2018

Student's Achievement

Mr. Tarun Sethia (Batch 2014-18) has been selected as ETCS Challengers 2017-18, a National Level Test organized by Economic Times Campus Stars. The Economic Times Campus Stars is an initiative for identifying, recognizing and rewarding India's the brightest and smartest engineering students. This initiative is meant to encourage and nurture young engineers who will be driving the growth of this country as they join the corporate bandwagon.



Alumni Interaction

1. An interactive informal session on “Career Awareness” was organized for B.Tech (IT) 2nd year and 3rd year students on 29 Jan 2018.. The speaker of the session Mr. Yatish Khatri, Project Manager TCS, Batch (2000 – 2004).
2. A session on “Technology Awareness and Bridging the Gap between Academia and Industry” was organized for B.Tech (IT) 2nd year and 3rd year students on 5th April 2018. The speaker of the session Mr. Akash Puri, Head of Engineering at Ziffyhomes, Batch (2010 – 2014).



Alumni Session

3. A session on “Preparing for Higher Education” was organized for B.Tech (IT) 3rd year students on 11th April 2018. The speaker of the session Ms. Sakshi Vardhan, Social Media Manager, Airtel, Gurgaon, Batch (2010 - 2014).

Student Corners

1. Smart India Hackathon'18

AICTE has organized the 2nd version of Smart India Hackathon 2018 and inviting young youth to participate and solve the problems of India. Many ministries and govt. departments have share their problems for the students.

The students of Department of Information Technology submitted the six proposal in hackathon' 18. The detail of teams are given below:

Team Name	Name
Team Leader	Dr. Amit Sinha
Team Member1	Naman jain
Team Member2	Mrinali Verma
Team Member3	Sanyam Gupta
Team Member4	Naman Kumar saxena
Team Member5	Mohd. Yousuf sarfaraz

Team Name	Name
Team Leader	Mr. Pankaj Kumar Sharma
Team Member1	Apoorv Gupta
Team Member2	Himanshu Verma
Team Member3	Aman Sharma
Team Member4	Abhishek Singh Yadav
Team Member5	Pradyuti

Team Name	Name
Team Leader	Dr. Santosh Kumar
Team Member1	Mudit Mishra
Team Member2	Mayank Singh
Team Member3	Viraj Singh
Team Member4	Shreya Sharma
Team Member5	Sarthak Tyagi



İ NİÖ ÇEFÖMİÖ	Name
Team Leader	Ashwin Perti
Team Member1	Ashu Tyagi
Team Member2	Aditya Kumar
Team Member3	Deeraj Kumar
Team Member4	Anushree Tiwari
Team Member5	kanishk Jain

İ NİÖ DÈÈÈĞİ INNOVATORS	Name
Team Leader	Dr. Kanika
Team Member1	Utkarsh Upadhay
Team Member2	Satyam Dubey
Team Member3	Monu Kumar
Team Member4	Somya Parashar
Team Member5	Saourav Rawar

İ NİÖ DÈİ ÖN Analyzers	Name
Team Leader	Shelley Gupta
Team leader	Prerna Bhardwaj
Team Member2	Prerit Goel
Team Member3	Rishabh Kumar
Team Member4	Sweta Malik
Team Member5	Utkarsh Kanodia

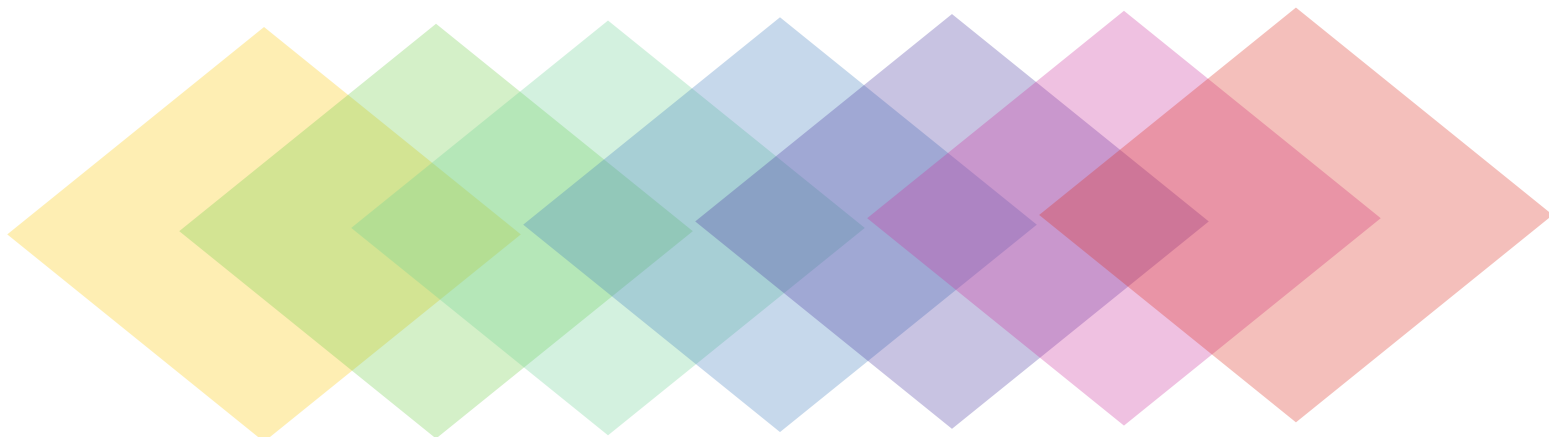
İ NİÖ DÈ TechWarriors	Name
Team Leader	Swati Goel
Team leader	Jagreeti kaur
Team Member2	Archit Garg
Team Member3	Pranjal Mittal
Team Member4	Poorvi Srivastava
Team Member5	Anima Taraiya

Sports

Sports play a very important role in promoting mental and psychological advances in human beings. Sports are also a great medium for developing lifelong skills in students. Students from ABESEC Department of Information Technology also participated in various events with great enthusiasm and also win the prizes.

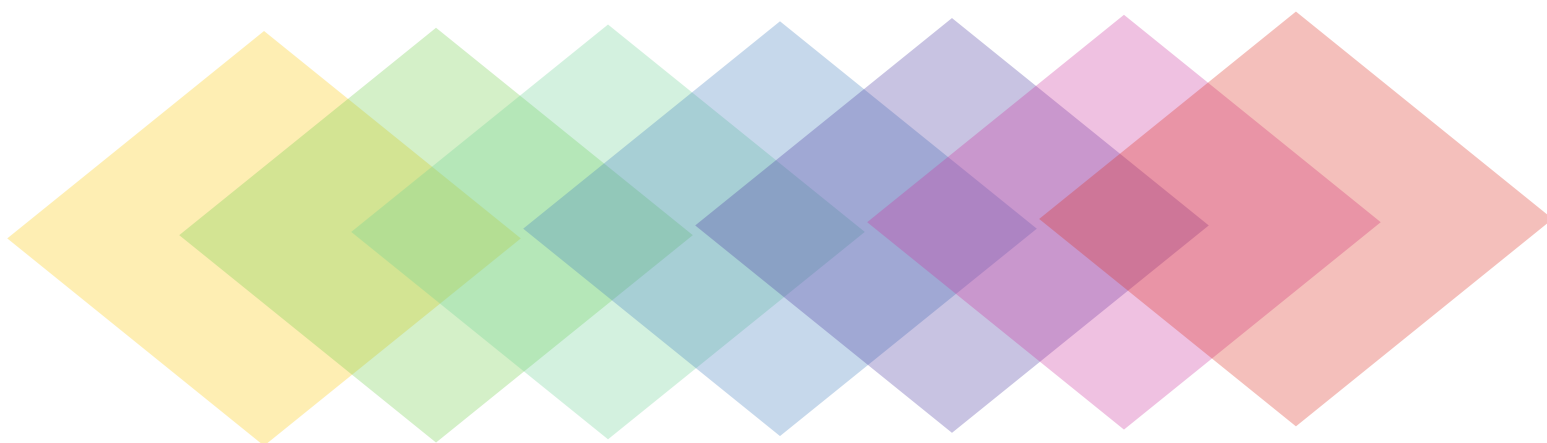


Winners in 'Zonal Level Sports Fest'



The detail of prizes won are given below:

S. No.	Student Details			Event Details			Year/Session
	Roll No.	Name of Student	Year / Sec.	Name of event	Venue	Prize won / Participation	
1	1603213019	Archana Kumari	2 nd Year	(Dr. APJAKTU State level Sports Fest)	Held at BBDIT University, LKW	Gold Medal Volleyball	2017-18 Even 5 th - 7 th , Feb 2018
2	1603213019	Archana Kumari	2 nd Year	(Dr. APJAKTU Zonal level Sports Fest)	Held at ABESIT, Ghaziabad	Gold Medal Volleyball	2017-18 Even 23 rd -25 th , Jan 2018
3	1503213034	Ashutosh Pathak	3 rd Year	(Dr. APJAKTU Zonal level Sports Fest)	Held at ABESIT, Ghaziabad	Silver Medal Basketball	2017-18 Even 23 rd -25 th , Jan 2018
4	1503213066	Md. Yousf	3 rd Year	(Dr. APJAKTU Zonal level Sports Fest)	Held at ABESIT, Ghaziabad	Silver Medal Basketball	2017-18 Even 23 rd -25 th , Jan 2018
5	1503213106	Smriti Bansal	3 rd Year	(Dr. APJAKTU Zonal level Sports Fest)	Held at ABESIT, Ghaziabad	Silver Medal 4*100 mtr relay	2017-18 Even 23 rd -25 th , Jan 2018
6	1503213106	Smriti Bansal	3 rd Year	(Dr. APJAKTU Zonal level Sports Fest)	Held at ABESIT, Ghaziabad	Silver Medal 4*400 mtr relay	2017-18 Even 23 rd -25 th , Jan 2018
7	1503213069	Mudit Mishra	3 rd Year	(Dr. APJAKTU Zonal level Sports Fest)	Held at ABESIT, Ghaziabad	Bronze Medal Badminton	2017-18 Even 23 rd -25 th , Jan 2018





Department of Information Technology

Our Patrons

Chief Patron

Sh. Neeraj Goel
Chairman

Patrons

Sh. Sachin Goel, Vice Chairman
Prof. Gajendra Singh, Director

Chairman, Publication

Prof. (Dr.) Amit Sinha
Head, IT Dept.
hodit@abes.ac.in

Editorial

Editor in Chief:

Mr. Pankaj Kumar Sharma
(A-Hod IT Associate Professor)

Creative Editor

Ms. Shelley Gupta (Assistant Professor)

Student Editorial Board

Mr. Prerit Goel, B.Tech. (IT, 3rd year)
Ms. Shreya Bharti, B.Tech (IT, 4th year)
Ms. Yashi Gupta, B.Tech (IT, 4th year)

Proof Reader

Mr. Ashwin Perti
(Associate Professor)

Managing Editor

Mr. Ritin Behl (Assistant Professor)

ABES Engineering College

19th Km Stone, NH 24, Ghaziabad 201009, UP

Ph: 0120-7135112, Fax : 0120-7135115 Mobile: +91-9999889341

Email: info@abes.ac.in, Website - www.abes.ac.in