



**K.K. Wagh Education Society's  
K.K. Wagh Institute of Engineering  
Education and Research, Nashik.**

March 2016

Vol.:8  
Issue:3

■ **IET- Karmaveer Expo 2016**



Inauguration IET- Karmaveer Expo 2016



Felicitating of Hon. Dr. Shrikant Karwa

Department of Electrical Engineering in association with IET (U.K.) Nashik Local Network has organized, "IET- Karmaveer Expo 2016" a national level working model contest for the students of Engineering and Technology during March 18-19, 2016. The chief guest for the inauguration of the IET-Karmaveer Expo 2016 was Hon. Shri Mukul Shrivastava, VP, Crompton Greaves Ltd., Nashik. Guest of honor Shri. Manish Gupta, Powerica Ltd., in the presence of President of K. K. Wagh Education Society, Hon. Shri. Balasaheb Wagh, Vice-President Hon. Shri. Kashinathdada Tarle, and trustees of K. K.

Wagh Education Society, Principal Dr. K. N. Nandurkar and Prof. Dr. B. E. Kushare, Professor & Head Department of Electrical Engineering & Convener of the IET-Karmaveer Expo 2016. Total projects/models exhibited in IET-Karmaveer Expo 2016 were 97 and total students participated from various states of the country were 331. The total prize amount was Rs. 2,50,000/-. During Expo the various events such as Poster competition, photography competitions were also organized. A large number of students from Nashik and around Nashik and industry persons, parents of the students visited IET Karmaveer Expo 2016 during these two days. For the valedictory function, the Chief Guest was Hon. Dr. Shrikant Karwa, Founder Catapharma Group, Nashik.

■ **KARMAVEER SPORTS FEST 2016**

Karmaveer Sports Fest 2016 is organized by Gymkhana Department of our institute during 3<sup>rd</sup> -14<sup>th</sup> March 2016. Various events were arranged like Cricket, Basketball (Girls), Basketball (Boys), Volleyball, Carom, Carom Doubles, Chess, Box Cricket and Badminton. For the inauguration Hon. Chairman Shri. Balalasaheb Wagh, Mrs. Shakuntalatai Balalasaheb Wagh, Ajinkya Balalasaheb Wagh & Principal Dr. K. N. Nandurkar were present.

■ **MAFFICK 2016 - Prize Distribution**

Annual Prize Distribution ceremony of Maffick-2016 was held on Monday, 21<sup>st</sup> March 2016. Hon. Shree Tejas Kshatriya, Associate Vice President, (Hybrid Technology), K.P.I.T. Technologies Ltd., Pune (Alumnus of K. K. Wagh I. E. E. & R. Nashik) was present as a Chief Guest to grace the function. Dr. Mahendra Mahajan, International Cyclist, and Mr. Vishal Ugale, Founder President of Nashik Cyclist Association, were also present

as Guests for the function. Principal Dr. K. N. Nandurkar briefed about the achievements of students, Staff and Institute. Prof. T. K. Kandekar, Physical Director, K.K.W.I.E.E.& R. Nashik, briefed about the achievements of the students in sports. Prizes of Academic, Sponsored Academic, Cultural, and Sports were distributed at the hands of Chief Guest. Prof. Dr. S. S. Sane, Prof. V. K. Patil, Mr. Sushant Patil, General Secretary, Miss. Sayali Chandwadkar, Cultural Secretary and members of Student council were present for the function. Prof A. S. Kamble gave vote of thanks.



Felicitating of Chief guest Hon. Shree Tejas Kshatriya

### ■ Meeting of Local Managing Committee

Meeting of Local Managing Committee of the Institute was held in the Central Office of K. K. Wagh Education Society on 29<sup>th</sup> March 2016. Dr. Omprakash Kulkarni, Prof. Suraj Jhavar were present along with Hon. Shri. Balasaheb D. Wagh, President, K. K. Wagh Education Society, other Hon. Trustees, Principal Dr. K. N. Nandurkar and other elected members.

### ■ EQUINOX 2016

Department of Computer Engineering in association with Debuggers Club and Student Branch of CSI organized National Level Technical Symposium "Equinox 16" on 17<sup>th</sup> and 18<sup>th</sup> March 2016. The event was presided by Chief Guest Mr. Suchit Tiwari, Director, Cognifront Pvt., Ltd., Nashik. Principal Dr. K. N. Nandurkar, Prof. Dr. S. S. Sane (Head of Computer Engineering), Prof. N. M. Shahane and Prof. Mrs. S. M. Kamalapur were present during Inauguration. In technical and Non technical event, Equinox-16 saw around 1500 participants from various colleges across the state. The non-technical events were Finder's Keeper's (Treasure Hunt Event), Picasso Attic (Photography Event), Flash Point (Poster Making Competition), Mock Interview (Apti., GD and Interview) and Mock Stock (Marketing Event). The technical events were Eureka (Project

Competition), Quiz Up (Quiz Competition), Code War's (C/C++ Programming), Sense Virtually (Augmented Reality Workshop) and Writer's unboxed (Blog Writing).



Mr. Suchit Tiwari, Director Cognifront Pvt., Ltd., addressing in Equinox 16

### ■ ECLAT INVASION '15

Eclat Invasion'15 is a National Level Technical event organized by Department of Production Engineering during March 15-16, 2016. It was Sixth consecutive year to arrange Eclat Invasion. The main sponsor for this event was Neha Jewelers, Sinnar. The event was inaugurated in presence of chief guests Smt. Nayan Atul Jakdi, Owner of Neha Jewelers and Head of department Prof. S. B. Chandgude, PESA Co-ordinator Mr. A. A. Sonawane with all staff members of the department. The technical competitions organized were Airlift, Bike Mania, Catapult King, and Brain Buster. Design competition ProDestiny included model making using software's like Auto - Cad and Pro-E to test the skill of student's. The eye catching event in Invasion is Eggstronaut which has maximum participation every year. Another event which gained popularity among students is Tyrolene Travers. The newly introduced and highly popular event was RAHASYA. Other entertaining events were Somas Cube & poster Competition. 370 students participated in this event. Prizes were given to winners and runner ups and for some events consolation prizes were given for some events.

### ■ Conference on "Advances in Industrial Engineering, Manufacturing, Tool Design And Robotics"

Department of Production Engineering organized 1<sup>st</sup> student conference on "Advances in Industrial Engineering, Manufacturing, Tool Design and Robotics". SE, TE and BE students from Mechanical and Production Engineering department were present. Students have expressed technical skills and infusion of enthusiasm for research oriented activities. Dr.

continued on page 3

Chincholkar, Principal of Guru Govind Singh Engineering College, Nashik was Chief Guest for inauguration. Principal Dr. K. N. Nandurkar, Prof. Dr. S. B. Chandgude and Prof. Dr. P. J. Pawar were present for the inauguration.



Inauguration of conference

**TELEKINESIS 2016**

State level event "Telekinesis 2016" was organized by Electronics and Telecommunication Engineering department of our institute on 16-17 March 2016. Various Events were organized in this competition. Inauguration was done in presence of Mr. Mahendra Sawarkar, Nashrobotics Pvt., Ltd., Nashik, Prof. Dr. Vishal Wankhede, HOD, SNJB, Chandwad, Prof.V. A. Birari, HOD, NDMVPCOE and Head of E & TC department Prof. Dr. D. M. Chandwadkar. Prizes were distributed to all winners on 17<sup>th</sup> March 2016.



State level event "Telekinesis 2016"

**FORCE 2016**

Department of Civil Engineering organized two days National Level Technical Symposium FORCE 2016 on 17<sup>th</sup> and 18<sup>th</sup> of March 2016, which comprised of 07 Technical events, which included Bridge- O- Mania, CAD Enza, Surveying - e - Everest, Tower Power, Poster Competition, Snap Hunt, Poster Competition and Drama based on Social Issue. These events are exclusively based on Civil Engineering related knowledge & activities. Every year FORCE

creates awareness on Social Issues. This year the theme of event was Road Safety, to create awareness amongst the young drivers to follow traffic rules and drive vehicles safely to avoid accidents. The Chief Guest for Inauguration function was Mr. Bharat Kalaskar, Deputy Regional Transport Officer, Nashik with presence of Hon. Shri Ajinkya Wagh, Principal Dr. K.N. Nandurkar, Head of Department Dr. Pradip D. Jadhao and all the Staff Members of the Department. More than 900 students, coming from farthest corners of India participated in this event.



Inauguration of Force 2016

**MECHAEVEN 2016**



Inauguration of Mecheaven 2016

Mechaeven 2016 had been organized by the Department of Mechanical Engineering on 15,16 March 2016. 20 event like Treasure Hunt, Beg barrow Steal, Bike Menia, Extempore had been carried out by 3000 participant from all over India . Nashik District Collector Hon. Shri. Deependra Singh Kushwah (IAS), Mr. Abass Aboojiwal CEO, Technoshell Automation Pvt., Ltd., Nashik inaugurated MECHEAVEN 2016 and also inaugurated the two national level prize winner vehicles, design and manufactured by Mechanical Department student. The GOKART

continued on page 4

Vehicle participated in NKRC, Bhopal and Baja Student Vehicle participated in Buddha International Circuit, Noida . For inauguration ceremony, Hon. Shri. Balasaheb Wagh, Chairman, K. K. Wagh Education Society, Vice Chairman Shri. Kashinathdada Tarle, Secretary Prof. K. S. Bandi, Principal Dr. K. N. Nandurkar, Head of Mechanical Engineering Prof. M. B. Murugkar present.

### CHEMFEST 2K16



Inauguration of ChemFest2K16

Department of Chemical Engineering organized National Level Technical Symposium, CHEMFEST 2K16 on 16<sup>th</sup> March 2016. The Symposium contains various competitions like Paper Presentation, Model Making, Poster Painting and Quiz Contest. The event promoted the theme of "Skill India". The Symposium was inaugurated at the hands of Chief Guest Mr. B. Sitharaman, Director of BSR Technologies, Nashik and Principal Dr. K. N. Nandurkar. Mr. Chandrakant Mohikar (Petro-project Consultant), Mr. Ajit Tambe & Mr. Yogesh Lawand from Graphite India Pvt. Ltd., Ambad, Nashik, Mr. Rohan Pawar, RAP Consultancy and Mr. Rushikesh Bhandari, Purchase House, Ambad, Nashik were among the panel of judges for various events. Chief Guest of the Valedictory function was Mr. Sameer Patwa, Director of SAM Consultech, Ambad, Nashik distributed prizes to all the winners. The total registrations for various events in CHEMFEST2K16 were around 300.

### ITiazza'16



Winners of ITiazza-2016 along with Chief Guest and Faculty Members

The Dept. of Information Technology hosted a two days National Level Technical Symposium, ITiazza'16 on 16<sup>th</sup> and 17<sup>th</sup> March 2016. The Symposium comprised of C and C++ Programming contest- Dr.Code and Code Race, Mock Placement (Aptitude Test, Group Discussion Contest), Quiz Contest, Poster Competition and Assembling of CPU contest, PC-Hunt, Photograph and Gaming Competition. The event promoted the theme of "Digital India: Smart India". The Symposium was inaugurated at the hands of Mrs. Nilima Patil, Vice President, AIMA, Nashik. Cash Prizes worth Rs. 45,000/- were distributed at the hands of the Chief Guest of the Valedictory function Mr. B. M. Khairnar, Managing Director, Precision Auto Industries Pvt. Ltd., Nashik. The total registrations for various events in ITiazza-16 were 725.

### MAVERICK 2016



Participants of MAVERICK 2016

MBA Department organized MAVERICK 2016, an intercollegiate state level event for undergraduate students on 1<sup>st</sup> March 2016. Students from various institutes in and around Nashik participated in the event. The event gave encouragement to students to show their talent and skills. Principal Dr. K. N. Nandurkar, HOD Dr. Mrs. Aarti T. More, MBA-MCA Co-ordinator Mr. S. S. Jhawar and participating students in huge numbers were present for the inauguration function. Principal Dr. K. N. Nandurkar addressed the gathering and informed them about the institute. He also stressed on the importance of organizing events like MAVERICK 2016 for overall development of students. After the inauguration various competitions like AD-MAD Show, Poster Presentation, Debate and Business Quiz were organized. 212 students participated in various competitions during this event. Mr. Manish Ambewadikar, Regional Head, Reliance Communication was the Chief Guest for Valedictory function of MAVERICK 2016. Prizes and certificates were given to the winners through the hands of Mr. Manish Ambewadikar.

continued on page 5

## ■ Master Student Programme

The Master Student Program is organized every year in K. K. Wagh Institute of Engineering Education and Research by ISTE student's chapter since 2003 and this year it marked its 14<sup>th</sup> year of success. It was conducted on 9<sup>th</sup> March 2016. This program is inspired by a book called "Master Student" prepared by ISTE. The theme of this year's Master Students Program was "ENGINEER's ARSENAL" introduced by Principal of the institute Prof. Dr. K. N. Nandurkar. The program focuses on different skills an engineering student should acquire during four years of course to mould himself/herself as a world class professional. This theme is broadly classified into fourteen subtopics which were presented by fourteen students selected from various department of second year engineering as a speaker. They were mentored by a group of fourteen students from third year for a period of nearly two weeks. The speakers delivered a short presentation, each concentrating on the various facets of the given theme. Principal Dr. K. N. Nandurkar and Prof. Dr. S. S. Sane graced the event with their presence. Prof. Vijay Bhat, Principal MET BKC Polytechnic, Nashik guided students about his journey and the importance of hard and soft skills in Engineers life. The program was conducted for the entire day and it provided an entire spectrum of topics which includes 7 Hard and 7 Soft Skills, right from "Listening skills" to "Introspection" and "People skills". The team of ISTE under the guidance of their Principal Dr. K. N. Nandurkar and faculty advisor Prof. Prajakta Vispute marked this year's MSP as a remarkable and successful event.



Prize distribution of Master Student Program

## ■ Seminar On Physical Education

A seminar was conducted for all F.E. students giving them information about physical awareness, nutrition and diet and sports on 12<sup>th</sup> March 2016 in the institute. On this occasion

Prof. Dilip Londhe (Director of Sports and Physical Education, Nashik Road College) delivered the lecture.



Prof. Dilip Londhe delivering a lecture on Physical Education

## ■ Srinivasa Ramanujan Mathematical Competition

Srinivasa Ramanujan Mathematical competition held in our Institute on 27<sup>th</sup> March 2016. 67 students of Engineering and Polytechnic and 2 staff members appeared for this exam. The online test was conducted between 10.00am to 3.00pm in Dr. A.P.J. Abdul Kalam Career Development Center. After successful conduction of the test the results were uploaded on ISTE, New Delhi website. Prof. Dr. K. N. Nandurkar has reviewed the event and motivated the students for this competition. Prof. P. S. Vispute and Mr. Tile conducted this exam with the help of ISTE Students' chapter student's volunteers.



Ramanujan Mathematical Competition

## ■ Expert Lecture/Seminar/Courses/Worshop Organized:

- Computer engineering department organized a Training on "How to perform a Group Discussion?" by Mr. Vishal Jategaonkar on 10<sup>th</sup> & 11<sup>th</sup> March 2016 and an Expert Talk on the topic "The Agile Way" by Ms Dipti Kulkarni on 11<sup>th</sup> March 2016. Same department also organized an Expert talk on "Goggle Chrome Book and Technology" by Mr. Shashank Todwal on 22<sup>nd</sup> March 2016 and an Expert talk on "Programming with CUDA" by Mr. G. K. Bhamare on 25<sup>th</sup> March 2016.
- E & TC Engineering Department organized Seminar on "4G-LTE:L Architecture and operation" by Mr. Sujay Lande, Asst. Manager (RF), Reliance Jio on 02/03/2016, One day

continued on page 6

KPIT SME Connect by Ms. Tracy Austina on 03/03/2016 & Mr. Kiran Karanjikar on 04/03/2016 and seminar on “Electrical and Electronics Industrial Standards” by Mr. Pravin Ambekar, Director, Amb’s C-DSP, Aurangabad on 04/03/2016. Same department also organized a seminar on “Emotional Quotient” by Dr. Anand Patil on 12/03/2016, Seminar on” Entrepreneurship development” by Dr. R. S. Tiwari, Ex-Director, Computer Department, YCMOU, Nashik on 23/03/2016 and an Expert lecture on “Team Building and Group discussion” by Mr. Vishal Jategaonkar, PT Education, Nashik on 30/03/2016.

- Production Engineering Department organized an expert talk on “Lifestyle in Industries” by Mr. Nikhil Bhadane, Production Engineer at Bajajsons Ltd., Satpur on 26/03/2016.
- Civil Engineering Department organized an Expert Lecture of Mrs. Rajni Deshmukh on 05/03/2016, an expert lecture of Mr. M. M. Waghmare on 07/03/2016 and an Expert Lecture of Prof. Sameer Alone on 11/03/2016.
- Electrical Engineering Department organized One Day Seminar on IOT by Mr. Anuj Ashokan, Mr. Parag Phakatkar, Ms. Ipsita Bhattacharya and Mr. Krishna Singh on 19/03/2016.
- Chemical Engineering Department organized an expert talk on “Preparation of GATE” (by Mr. Yogesh Tyagi Gateway Institute, Pune on 16/03/2016 and seminar on “ Personality Development and soft skill” by Prof. Subhash D. Rajguru, Nashik.
- IT Department in association with Mechanical dept. had organized a “Presentation and Group Discussion competition -Spotlight” from 3<sup>rd</sup> to 12<sup>th</sup> March 2016. Same department in association with Electrical Dept. and IET Local Network Nashik organized a National level seminar on “Internet of Things” on 19<sup>th</sup> March 2016. Dr. Rishi Bhatnagar, President, Aeris Communication, Mr. Anuj Ashokan, Tata Teleservices, Mr. Krishna Singh, Founder Director, Global Space Technologies, Ipsita Bhattacharya, Tech Mahindra, Parag Phakatkar, Director Solutions, Aeris Communication and Prof. Dr. B. E. Kushare (Head of Electrical Engg.) were the resource persons of the seminar. Same department had

organized a SME Connect workshop for two days on “Java Programming” and “Oracle practices and functional overview” under KPIT Pace Program on 28<sup>th</sup> and 29<sup>th</sup> March 2016. Under the same program one day workshop on “Oracle SBU” and test series were conducted from 21<sup>st</sup> to 24<sup>th</sup> March 2016. Same department had organized a two workshop on “Development of Aptitude and Soft Skills” by Mr. Ahinshu Ghosh, Universal Education, Bangalore on 25<sup>th</sup> and 26<sup>th</sup> March 2016 and a seminar on “Currents trends in Internet of Things (IOT)” by Mr. Shyam Singh, Persistent Systems, Pune on 26<sup>th</sup> March 2016.

- MBA Department organized an Expert Lecture on ‘Interpretation of Budget 2016’ by Mr. Pramod Puranik (Ex Board of Director, Janlaxmi Bank) on 05/03/2016 and an Expert Lecture on “Secrets of success in corporate world” by Mr. U. K. Handa (Ex GM, VIP) on 18/03/2016.

#### ■ Seminars/Workshop/Training attended by Staff:

- Chemical Engineering staff Prof. S. N. Jain, Prof. G. B. Daware, Prof. S. N. Derle , Prof. S. S. Shinde & , Prof. P. P. Joshi have attended “Ansys Workshop” on 8 & 9 March 2016 at our Institute.
- Science & Math Department Head Prof Dr. S. N. Kadlag and Dr. S. S. Naik attended National Conference on “Recent trends in fractional calculate” on 10<sup>th</sup> and 11<sup>th</sup> March 2016 at L.V.H. Arts Science Commerce College, Panchavati, Nashik.

#### ■ Industrial Visits Organized For Students:

Date	Class	Name of Company
08/03/2016	S.E. Electrical	S.S. Technovation, Satpur, Nashik
09/03/2016	B.E. Civil	Gangapur Dam
10/03/2016	S.E. Electrical	Link Servosystem Pvt., Ltd., Ambad, Nashik
14/03/2016	T.E. Electrical	Fairdeal Transformers, Ambad, Nashik
15/03/2016	B.E. Electrical	Sanjivani Sahakari Sakhar Karkhana, Kopargaon
19/03/2016	T.E. Computer	PSPL
23/03/2016	S.E.(Civil) (I & II shift)	RMC plant, Ark Side Avenue, Nashik
23/03/2016	S.E. Electrical	400 kV sub-station, Bhabhaleshwar
26/03/2016	M.E. (C.S.)	Bhavesh Polymers, Malegaon, Sinnar
31/03/2016	T.E. Civil, SDD-II	Park Side, Hanuman Nagar, Nashik

#### ■ Books Purchased in Central Library : March 2016

Sr.No.	Name of Dept.	Total No. of Books purchased
01	Computer Engineering	02

## ■ Training & Placement :

Name of Company	Name of the Dept.	No. of students selected
TCS	E & TC	02
	Electronics	01
	Computer Engg.	02
	Mechanical Engg.	03
CGI Bangalore	Computer Engg.	02
Konark Engineering	Production Engg.	01
	Chemical Engg.	01
Wipro Technologies	MCA	01
Tradersbazar.com	MBA	01
Just Dial	MBA	01
Power Care	MBA	01

## ■ Other Achievements

- Principal Dr. K. N. Nandurkar attended the meeting of Academic Advisory Council of Shri. Guru Gobind Sing Polytechnic, Nashik on 30<sup>th</sup> March 2016.

## ■ Abstracts of papers presented during Mar. 2016:

### Efficient Relevance Feedback for CBIR System

Ms. Priti Prasad Vaidya

(Published a paper in International Journal of Science & Engineering Development Research (IJS DR) (ISSN : 2455-2631))

**Abstract:** The performance of the CBIR system can be improved by reducing the semantic gap between visual features and human semantics. Relevance Feedback (RF) approach refines the retrieval process as per users feedback. A variety of Relevance Feedback (RF) methods have been widely used to reduce the semantic gap. Related works on CBIR are also investigated and it was observed that existing Relevance Feedback techniques face the challenges of number of iterations and the execution time. To improve the retrieval efficiency of the existing system, the proposed RF approach makes use of binary classifier and a feature selection technique to reduce the dimensionality of the image feature space. In each RF iteration, the positive and negative examples provided by the user will be used to determine a small number of the most important features for the classification. After the feature selection has been performed, a binary classifier will be trained to distinguish between relevant and irrelevant images according to the preferences of the user for the given query. The trained classifier will be used later to provide an updated ranking of the database images

represented in the space of the selected features.

**Keywords:** Content based image retrieval (CBIR); Relevance Feedback (RF); Feature selection; Binary classifier;

### ■ Optimization of Neem Seed oil Production Process by Solvent Extraction

Prof. S. S. Shinde

(Published paper in International Journal of Trend in Research and Development, Volume 3(2), ISSN: 2394-9333.)

**Abstract:** Neem is one of the best gift of nature due to large number of applications such as in medicinal, agricultural, cosmetics industry. The oil obtained from neem seeds plays important role in many industries such as insecticide and fertilizer industry. There are many methods for production of neem seed oil, in this study our emphasis was on to optimize the production of neem seed oil by solvent extraction process, to find the optimal values of independent variables (extraction time, volume of solvent, temperature) on our desired response variable (oil yield). For this purpose we used Box-Behnken method which comes under response surface methodology. The software package that was used was Design Expert 10.0.0 trial version. Based on this 17 experimental runs were taken. Mass of sample was kept 50 grams for all runs and solvent used for each run was hexane.

**Keywords:** Response Surface Methodology; Soxhlet Extraction; Design Expert 10.0.0. Trial Version

### ■ Sustainable Use of Waste Cooking Oil into Biodiesel

Prof. M. K Ahire

(Published paper in International Journal of Innovative and Emerging Research in Engineering, Volume 3, Issue 3, 2016)

**Abstract:** In this paper we have focused on finding alternative fuel resources and their various properties. As the petroleum products have their own limitations, the used cooking oils can be converted into biofuel that can be used as fuel and fuel additive after purifying it. We have described various processes and common experimental techniques to get biofuel and study its physical and chemical properties.

continued on page 8

## ■ Secure User Authentication based on Continuous Multiple Verification

Prof. Ms. Poonam Mahale

(Presented paper in 5<sup>th</sup> PGCON conference organized by PCCOE, Pune in association BOS SPPU, Pune on 25<sup>th</sup> & 26<sup>th</sup> March 2016)

**Abstract:** A secure internet service is one of the major issues in the field of internet services. Internet services are based on session management of username password, explicit logouts & user session expiration that uses timeouts. Biometric solution allows substitution of password with biometric data during session establishment with single verification. In proposed work, additional level of security can be provided & multiple verification can be deployed for authentication. The user identity is continuously verified by applying different authentication in session management. Security & efficiency of system is exercised by different kinds of attacks. A secure data flow with privacy preservation for the session management by using biometric systems with less memory utilization will be offered. 128-bit Supervised Hashing technique is used to secure raw data along with dummy bit insertion in hash code & for less memory utilization. The use of biometric allows identity to be acquired clearly.

## ■ A Comparative Study of Classification Techniques for Crop Prediction

Prof. Ms. P. G. Fegade

(Presented paper in KCE Society's Institute of Management and Research in association with North Maharashtra University, Jalgaon on 21<sup>st</sup> & 22<sup>nd</sup> March 2016)

**Abstract:** Farming community necessitate for well-organized system to predict and improve the crop over the world. The complexity of predicting the best crops is highly due to unavailability of proper knowledge discovery in crop knowledgebase which affects the quality of prediction. However, classification is an important step in mining useful information. There are several classification methods such as

supervised, unsupervised and hybrid-based which make this task complicated due to problems related to optimization and noise. In this review paper there is a comparative study of classification algorithms. For supervised classification we have limited the review to SVM, Neural network and naïve bayes classification and for unsupervised methods we consider hierarchical, kmeans and SOM based classification.



Prize distribution of IET- Karmaveer Expo 2016



Projects by Students in FORCE 2016



Prof. Dr. K. N. Nandurkar  
PRINCIPAL

