



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

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■ **20th ADVISORY MEETING**

The 20th meeting of Advisory Committee was organized on 05th May at 02.00 pm in new meeting hall. Mr. Vivek Sawant, Dr. U. N. Gaitonde, Dr. D. G. Hapse, Prof. B. M. Naik and Mr. N. A. Joshi were present for the meeting. Hon. Shri. Balasaheb Wagh, Mr. D. S. Shinde, Principals of all institutes and senior staff members attended the meeting. All members congratulated Dr. Vijay Bhatkar on his appointment as Chairman of Governing Council of IIT Delhi. The NBA results of all three technical institutes in the campus were presented and it was decided to prepare a plan of action in order to prepare for the next NBA visit.



20th Advisory meeting held on 5th May 2012 in the Institute.

■ **Lecture by Prof. D. N. Singh**

The Prof. D. N. Singh from IIT Bombay delivered expert lecture on 5th May 2012 in the Institute. The topic was 'Need based instrumentation for various geoenvironmental issues'. Hon. Chairman Shri. Balasaheb Wagh felicitated the guest on this occasion. All Principals and staff of various Institutes attended the lecture.



Prof. D. N. Singh from IIT Bombay delivered expert lecture

Dr. Singh narrated his experiences while setting up the Environmental Geomechanics Laboratory at IIT Bombay. He said that necessity is the mother of invention and a teacher should never say 'no' to anything. Industry is a source of sponsorship if you are prompt in submitting the proposals. He explained the research projects undertaken by his laboratory and extended his cooperation to our institute for any joint research projects in future.

■ **Concluding Session of Finishing School**

The concluding session of Finishing School organized in association with CII Nashik was held on 10th May 2012 at Schneider Electric Ltd., Nashik. Certificates were distributed to 35 students of K. K. Wagh Institute of Engineering Education & Research, Nashik who successfully completed the course. Mr. Khare, General Manager, Schneider, Mr. Sudhir Mutalik, Managing Director, Positive Metering Pumps and Principal Prof. Dr. K. N. Nandurkar were present on this occasion. Mr. Charudatta Mhasde coordinated this activity.



View of concluding session at Schneider Electric Co. Ltd., Nashik



■ **Seminars / Workshop / Training Attended By Staff:**

- Principal Dr. K. N. Nandurkar, Prof. N. M. Shahane, Prof. V. S. Mane and Prof. S. R. Vhatkar attended a meeting at MKCL Pune to discuss about the Software developed by MKCL which will help the Educational Institutes to prepare for accreditation of programmes in a systematic way. The software will also be helpful in monitoring the progress done by each department towards achieving the accreditation status.
- Prof. P. B. Kushare, Prof. V. K. Patil, Prof. A. S. Patil, Prof. M. R. Pardeshi, Prof. R. V. Bhandare, staff of Department of Mechanical Engineering has attended STTP on "Recent Advances in Manufacturing Automation and Simulation-2012" held at CBIT Hyderabad during 7th to 19th May 2012.

■ **Training & Placement :**

Name of the Department	Name of Company	No.of students selected
Computer Engg.	Inovatus Infotech India Pvt. Ltd.	02
Information Technology	Inovatus Infotech India Pvt. Ltd.	02
Information Technology	Datamatics Globle Services Ltd., Nashik	02

■ **Other Achievements**

- Principal Dr. K. N. Nandurkar attended the meeting of the Association of Management of Unaided Engineering Colleges (Maharashtra) on 06th May 2012 at Sakhar Sankul, Pune. He made a presentation based on the discussions at 1st World Summit on Accreditation held at New Delhi during 25-28 March 2012.
- Prof. D. M. Kanade of Department of Computer Engineering selected as member of IEEE CS India council conference /workshop committee.
- Prof. S. P. Ugale of Department of Electronics and telecommunication had published book 'Fiber Optic Communication: System and Component' by Wiley India in month of May 2012.
- Prof. N. D. Chaudhary of Department of Civil Engineering delivered Expert lecture on "GIS GPS & Surveying in Water Resources Engg." to META (MERI) for MPSC Recruties during 17th - 18th May 2012.

■ **Book Review: The Fortune at the Bottom of the Pyramid (BOP)**

This book by C. K. Prahalad and Harvey C. Fruehauf addresses a challenge that - "What are we doing about the poorest people in the world? ... Why can't we mobilize the investment capacity of large firms with the knowledge and commitment of NGOs and the communities that need help? Why can't we co create new solutions.

The starting proposition of the author is that 'if we stop thinking of the poor as victims or as a burden and start recognizing them as resilient and creative entrepreneurs and value-conscious Consumers, a whole new world of opportunity will open up. The BOP as a segment consists of an estimated 4 billion people who live at below \$2/day. They represent a latent market for goods and services.

The first assumption is that there is no money at the BOP. The reality is that BOP offer huge opportunity due to their large numbers. BOP consumers also pay a high premium for the product services they avail.

Second assumption is that distribution access to BOP markets is very difficult and therefore represents a major impediment for the participation of large firms and MNCs. The reality is that with urbanization and widespread migration of poor to the cities, distribution logistics have become easier. In rural areas, there may be "media dark" areas and dispersed communities. Solutions have emerged in different contexts - Project Shakti from Hindustan Lever Limited and "Avon ladies" in Brazil. The third dominant assumption is that the poor are not brand-conscious. On the contrary, the poor are very brand-conscious. They are also extremely value conscious by necessity. The task therefore, is to convert the poor into consumers through market development. This would require giving the poor capacity to consume on a sustainable basis.

The principles in creating the capacity to consume have been described as "Three A's"

1. Affordability: Without compromising quality or efficacy
2. Access: To be ensured through geographically intensive distribution
3. Availability: To be ensured through distribution efficiency

The author has identified 12 principles of Innovations for BOP Markets:

1. Price performance, 2.Hybrid Solutions, 3.Scalable, transportable across countries, cultures and languages, 4.Focus on conserving resources, 5. Product development must start from a deep understanding of functionality, 6. Process innovations are as important as Product innovations, 7. Products and Services must take in to account skill levels, poor infrastructure, and difficulty of access for service in remote areas, 8.Education of customers on product usage is a key, 9.Products must work in hostile environments, 10.Research on the nature of consumer population, 11. Innovations must reach the poor-designing methods for accessing the poor at low cost is critical. 12. Product developers must focus on

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the broad architecture of the system-so that new features can be easily incorporated.

The author focuses on "The Ecosystem for Wealth Creation", shows how large firms can create a private sector ecosystem and act as a nodal firm. The author has included social organizations of different types – individual entrepreneurs, SMEs, Cooperatives and MNCs. A market based ecosystem for wealth creation consists of the following players: Extralegal NGO enterprises, Micro enterprises, Small and medium enterprises, cooperatives, large local firms, MNCs, NGOs.

The author also emphasizes on "Reducing Corruption: Transaction Governance Capacity", addresses the issue of corruption. Corruption is a market mechanism for privileged access. It adds to cost burden and business uncertainty. The author refers to the work of Hernando De Soto titled 'The Mystery of Capital' and establishes that substantial values lies locked within the underdeveloped societies due to corruption. This can be overcome by developing Transaction Governance Capacity (TGC) in the BOP. TGC constitutes: a. Law to protect the property b. Micro regulation c. Social Norms and d. Institutions for enforcement.

Given the capacity to solve problems of poverty through profit, innovations are required in product design and in converting poor in to market. The process generates TCG. These factors can trigger rapid economic and social development. The author discusses this aspect in "Development as Social Transformation". Building markets help in breaking down barriers in communication. This is evident in e-choupal model. Farmers from villages could get information from Chicago Board of Trade. One of the farmers also wrote an e-mail to one of the researchers who were assisting the author in compiling the case studies. The BOP consumers are constantly upgrading in the process of participating in expanded market, gain access to knowledge and identity as individuals. Another well understood but poorly articulated reality is the role of women in development. Their critical role is to be seen in the case of Avon Ladies, SHGs, Amul and in Cemex. The last point the author makes is that the social transformation should lead the pyramid structure to morph a diamond. Pyramid depicts unequal distribution in the society. A diamond structure represents a minority at top and bottom and a majority of middle class. He quotes National Council of Applied Economic Research to discern such trend in states such as Gujarat and Haryana. While states like Bihar and Orissa show a pyramid type of structure, Maharashtra and Punjab show an inverted pyramid. This pattern is likely to repeat itself in rural and urban India. The author

concludes by emphasizing that the best allies in fighting poverty are the poor themselves and also conjectures that the bold initiatives would lead to elimination of poverty by 2020.

Part II of the book is a detailed discussion on the successful innovations under the heading Innovative Practices at the Bottom of the Pyramid.

Dr. Aarti T. More
Asst. Prof.
MBA - Department

Abstracts Of Papers Presented By Staff during May 2012:

Social Networking Sites - Effective medium to reach the youth for marketing the products

Prof. Dr. Aarti T. More

(Presented at National conference organized by Kohinoor Business School, Mumbai)

Abstract:- Social networks are used as a marketing tool for many different purposes. Companies use these sites to gain information on their target market, and how people feel about their products. They also use these sites to gain information on their competition. The most valuable part of marketing using social networks is that it allows people to market their services to a large market at no cost. Thousands of people enter these sites daily. Therefore they are able reach a mass market free of charge. The popular network Facebook offers a free classifieds section where people are able to post things such as job listings, items for sale, or services available. Companies of all sorts are able to place advertisements for their products or services, as well as post job opportunities. People are also able to market themselves by listing their skills and abilities for employers to view. One large benefit to marketing on social networks is the pass along factor. Users of these networks tend to pass along items that are of interest to them, or that they believe their friends will find interesting. Members are also able to pass along their own postings to other site members, whether they know them or not. Placing paid advertisements, such as banners, on these sites can also benefit a company greatly based on the amount of hits the sites receive each day. Thousands of members view these pages daily which means ads placed on these sites will reach a mass audience. Marketers are also able to monitor social networking sites, to read up on how people are viewing their brands. These sites allow them to see what their competitors are doing, and how customers view the competition. Receiving this feedback from customers allows marketers to understand what the target market is looking for, what people like about their products or services, and what needs to be improved.

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Keywords: Social Networking Sites, Marketing, Age, Young consumers

■ **Optimizing Overall Equipment Effectiveness through Simulation Analysis**

Prof. A. S. Relkar (Department of Production Engineering) & Dr. K. N. Nandurkar, (Principal, K.K. Wagh Institute of Engineering Education & Research) presented a paper at 2nd International Conference on "Operations Research & statistics" at Bali, Indonesia during 7th-8th May, 2012.

Abstract:- To compete in the global market, under utilization of machines is not at all affordable. In such scenario performance measurement is essential to know the state of art. Nakajima in 1988 introduces concept of Total Productive Maintenance in which focus is on continuous improvement of machine to achieve zero breakdown through autonomous maintenance. Overall Equipment Effectiveness is a performance measure metrics of equipment which will help to reduce losses and improve overall equipment effectiveness (O.E.E.) of machines. It measures breakdown and other related losses (speed losses, rejection) quantitatively. Overall equipment effectiveness (OEE) is a product of availability rate, performance rate and quality rate of machine. But while applying, manufacturer observed that OEE varies with nature of industry and with respect to application. Researchers in this field also feel that only effectiveness of single equipment will not serve the purpose of higher productivity but impact of one machine on another must also be taken into consideration. Each critical machine must maintain world class overall equipment effectiveness about 85% to improve overall factory effectiveness. In this paper an attempt has been done to simulate a manufacturing scenario, by using simulation software to identify bottleneck machine. Simulation software WITNESS is used for experimentation. Different combination of mean time between failures and repair time results into variation in output. Regression analysis by MiniTab15 software establish a classic relationship between overall equipment effectiveness and time between failure, repair time. The process of overall equipment effectiveness is optimized through response surface methodology to identify optimized zone for maximizing output.

Keywords: Overall equipment effectiveness (OEE), Simulation WITNESS, MiniTab15, optimization, maximum output.

■ **Fuzzy Hungarian Approach for Transportation Model**

Prof. S. B. Chandgude (Department of Production Engineering, K. K. Wagh Institute of Engineering Education & Research, Nashik) & Mr. Arun Patil (G. H. Raisoni College of Engineering & Management,

Wagholi, Pune) presented a paper in an International Conference on 'International Conference on Mechanical and Industrial Engineering' on 06th May 2012.

Abstract:- In this paper, a method is proposed to find the fuzzy optimal solution of fuzzy transportation model by representing all the parameters as trapezoidal fuzzy numbers. To illustrate the proposed method a fuzzy transportation problem is solved by using the proposed method and the results are obtained. The proposed method is easy to understand, and to apply for finding the fuzzy optimal solution of fuzzy transportation models in real life situations. However, we propose the method of fuzzy modified distribution for finding out the optimal solution for minimizing the cost of total fuzzy transportation. The advantages of the proposed method are also discussed.

Keywords: Fuzzy transportation; Trapezoidal fuzzy numbers; Optimal solution.

■ **Supply Chain Performance Measurement by Balance Scorecard with Analytical Hierarchy Process**

Prof. A. S. Relkar (Department of Production Engineering, K. K. Wagh Institute of Engineering Education & Research, Nashik) & Mr. P. P. Kulkarni (Shatabdi Institute of Technology, Agashkind, Nashik) presented a paper in an International Conference on 'International Conference on Mechanical and Industrial Engineering' on 06th May 2012.

Abstract:- Supply chain management (SCM) usually beyond company boundaries. Cooperating parties are required, who decide to work together. To survive in global competition, then not only measurement of entire organization performance is needed but also the performance of each link or section in the organization is needed. The supply chain performance measurement is helpful to (a) foster close working relationships with a limited number of suppliers; (b) promote open communication among supply-chain partners; and (c) develop long-term strategic relationship orientation to achieve mutual gains. The AHP is one of the tools that can help to meet the challenges. The AHP is a tool that link criteria's finance, internal business process & customer service. It helps to find out the weight ages of the performance measurement criteria's.

Keywords: SCM, Performance Measurement, AHP, Finance, Internal Business process & customer service.

Prof. Dr. K. N. Nandurkar
PRINCIPAL

