PMI India Research & Academic Conference 2015

PMI India Project Management Regional Conference 2015

Letter from the Managing Director, PMI India

Dear Readers,

PMI India organized its third Project Management Research & Academic Conference (RAC) in Mumbai and the first PMI India Regional Conference in Pune in February. The events brought together advocates and practitioners of project management to deliberate on ways to improve the adoption of project management in our lives.

During RAC, academicians, researchers, students, and practitioners together provided depth to discussions on the growing need for skilled project professionals in the country and how best we all can contribute to fill that gap. The theme for the conference this year was, "Project Management Excellence: Education, Research, and Practice". We utilized this occasion to promote the PMI Curriculum & Resources which are available at PMITeach.org, and were developed with input from university faculty from around the world to help institutions prepare the future workforce for one of the most in-demand and financially lucrative profession. The curriculum offers 30 knowledge modules that can be combined in different ways to design up to eight courses in project management. PMI India also launched a whitepaper during the conference on "The urgent need to establish a project management program".

A key feature of the conference was the presentation of research papers by researchers and students, and exemplary case studies from the real world of projects.

The PMI India Regional Conference in Pune focused on "Project Management for Nation Building" that brought to the fore innovative and creative adaptations of project management techniques that will help India achieve its goals of sustainable and inclusive growth. The theme was in line with Government of India's vision and ambitious programs such as "Make in India" and others on the anvil.

The one-day event was jointly organized by PMI Pune-Deccan India Chapter and PMI Mumbai Chapter. We had a rich exchange of ideas from practitioners, industry leaders, and trainers. The delegates also got an exciting opportunity to learn about Neuro-Linguistic Programming the following day. Three trainers provided them a hands-on experience of specialized, behavioral techniques that can be adapted at work.

I thank academicians, chapter volunteers and participants who made both these events a great success.

Warm regards,

Raj Kalady
Managing Director, PMI India

Dignitaries at the launch of a whitepaper during the Research & Academic Conference in Mumbai

Volunteers assisting delegates at the registration counter

Project Management Research &
Academic Conference 2015

13 Feb - 15 Feb, 2015, NITIE, Mumbai

Dear Practitioners,

As chairman and on behalf of the organizing committee, I thank all the speakers, delegates, and volunteers who made the third Project Management Research & Academic Conference 2015 a resounding success.

We brought together a truly unique program that addressed the broad international coverage of subjects relating to the theory and practice of project management. A series of state-of-the-art plenary presentations and technical paper presentations were presented by internationally renowned practitioners and academicians.

The conference gave us an opportunity to explore a broad range of topics and methodologies applied in project management research and provided a platform to disseminate state-of-the-art research in this field.

I hope you enjoy reading this special conference issue.

Warm regards,

Prof. Ashok K. Pundir
Conference chair
Professor & dean, Student Affairs & Placement
NITIE, Mumbai

Dear Colleagues,

It is my pleasure to present to you a special edition of *Manage India* on our highly successful Project Management Research & Academic Conference 2015.

National Institute of Industrial Engineering (NITIE) has always been a preferred destination for techno-managerial expertise and over the last 50 years, it has established a niche place in academia and industry. Leveraging on its strengths, NITIE has started two-year, full-time post graduate programs in project management and manufacturing management. These programs are aligned with the needs of our nation.

This conference provided excellent opportunities to all participants to understand the critical challenges and enable them to focus and develop a plan of action to achieve project management excellence.

I hope you enjoy reading about the exciting and enriching experiences at the conference in this issue.

Warm regards,

Prof. Karuna Jain
Chair - Academic Advisory Group, PMI India
Director, NITIE

Dear Colleagues,

We are delighted to have hosted the prestigious PMI Research and Academic Conference at NITIE Mumbai. Project management has been a key focus area in the NITIE curriculum and we have also launched a full time post graduate program in Project Management (PGDPM). This conference provided us an opportunity to share and deepen our knowledge of various concepts and practices of project management with faculty from across India and abroad.

I'm also privileged to have been the coordinator of the exclusive Faculty Development Program (FDP) on project management conducted at NITIE, along with the conference. FDP was led by Prof (Ms) Karuna Jain, director, NITIE. I look forward to many more such interactive platforms to bridge the gaps between the academic and corporate worlds.

Prof. Vivekanand B. Khanapuri
Conference Co-chair & Associate Professor, NITIE, Mumbai

Putting the Focus on Project Management Education and Research

Mr. Raj Kalady lighting the lamp during the inaugural ceremony with Mr. K Subrahmanian and Prof. Karuna Jain at the dais

Dignitaries unveil the conference proceedings during the inaugural session

BY SAPNA SABIN GUPTA

Organizations in India are steadily waking up to the need for a projectized work culture, resulting in an increase in the demand for project management professionals. PMI India's third Research and Academic Conference, hosted at the National Institute of Industrial Engineering (NITIE), Mumbai, focused on delivering project management excellence through education, research, and practice.

The three-day conference on 13-15 February was a forum for researchers, educators, students, and industry professionals to not only gain insight into their respective worlds but also constitute a strategy to impart quality project management education in India. The conference attracted over 250 attendees.

There were nine keynote addresses by well-known project management educators and industry experts, four tutorials, and two discussions, besides paper presentations by faculty members, researchers, and students.

The distinguished keynote speakers were Prof. Vijay Kanabar, professor and director of project management programs, Boston University, USA; Prof. Mangesh Korgaonker, director general, National Institute of Construction Management and Research; Mr. Pushkaraj Kale, banking, financial services and insurance sales - western region, Microsoft; Mr. K. Subrahmanian, vice chairman and managing director, Afcons Infrastructure Ltd.; and Mr. G. S. Tuteja, chief signal and telecommunications engineer, Western Railways; Prof. R. K. Shevgaonkar, director, Indian Institute of Technology, Delhi; Ms. Tessy Thomas, project director, Defence Research and Development Organisation; Ms. Radhika Rastogi, IAS, managing director, Maharashtra Small Industries

Development Corporation Ltd.; and Mr. Arun Balakrishnan, former chairman and managing director, HPCL.

The organizers received a total of 118 abstracts, out of which 34 papers were selected for presentation. These tracks covered topics under construction and infrastructure, information technology, organizational projects, research and development, social and public systems, and managing a dynamic project environment.

PMI India launched the PMI Curriculum and Resources – a curriculum framework for project management at the under graduate level. This is a faculty-to-faculty initiative in which PMI acted as a bridge. A whitepaper on "The urgent need to establish a project management program" was also launched.

A highlight of this year was the faculty development program that was organized and conducted by Prof. V. B. Khanapuri. It was held for five days starting two days prior to the conference during which NITIE faculty members held classroom training and tutorial sessions for program attendees on various pedagogical approaches to teaching project management.

PMI India presented awards to honor academicians for their contributions in project management advocacy, research, education, and training. There were 16 nominations for two awards under the PMI India Distinguished Scholar category and three awards under the PMI India Young Research Scholar category. The awards ceremony was followed by a cultural program in which musician Mr. Ravi Iyer and his group played Indo-western fusion music. Awards were also given to the best student technical paper and the best technical paper presented during the conference.

Curriculum to Match Industry Needs

PROF. VIJAY KANABAR
PROFESSOR AND DIRECTOR, PROJECT MANAGEMENT PROGRAMS
BOSTON UNIVERSITY, USA

Boston University is one of the most pro-active institutes that have invested heavily in faculty and research over the past 100 years. Prof. Vijay Kanabar emphasized the need to focus on research in order to build new products, services, and innovations.

PMI acted as a bridge to bring faculty members together to collaborate on a curriculum framework for project management at the under graduate level. The curriculum was officially launched at the conference. Prof. Kanabar, who was a part of the course design team, spoke to educators, researchers, and students about the need for the curriculum framework, the guiding principles behind it, and how they can adopt it.

"In the US, India is regarded with immense awe when it comes to the available career opportunities here. There has been a reverse trend of late in Boston of graduates returning to India. These students believe that this country offers outstanding opportunities in project management," said Prof. Kanabar.

On the second day of the conference, he delivered a keynote on project management education and how the focus of the curriculum must be to develop a competent workforce.

The demand for project management professionals has significantly increased over the years, though the quality of graduates does not often meet industry expectations. "The problem lies in university curricula that fail to nurture skills in students that will help them adapt and execute an assignment with ease five years from now," he commented.

He spoke about the need to inculcate soft skills and the ability in project professionals to adapt to varying cultural mores across the world.

Later, Prof. Kanabar conducted an open forum to discuss the newly launched project management curriculum outline and course modules. During the brainstorming session, he addressed the concerns of educators and clarified doubts regarding course content and structure.

Research to Reinvent Concepts

PROF. MANGESH KORGAONKER
DIRECTOR GENERAL
NATIONAL INSTITUTE OF CONSTRUCTION MANAGEMENT AND RESEARCH (NICMAR), PUNE

Analysis and research will take project management from a conventional to a modern domain, and help us develop a better understanding of the subject. Work break down structure, S curve, and earned value management (EVM) are some of the major contributions of research towards conventional project management techniques.

Prof. Mangesh Korgaonker believes EVM, which has led to earned duration management (EDM), will further evolve into earned money management (EMM) as a new concept in the near future.

He spoke about strategic concepts and technical tools including risks, decision-making, and problem solving that act as critical factors for project success.

Prof. Korgaonker pointed out that there is a strong need to re-invent project management so that it becomes more adaptive to the environment in which the project is being planned and executed. Instead of measuring

project performance through the efficiency matrix, he recommended measuring the impact of the project on project stakeholders. He said project managers must reflect on real scenarios and constantly stay ahead of the learning curve. The question is how and when research can move a step ahead of practice.

He cited the example of Denver airport in the US to illustrate the importance of analysis before implementing project practices. Though it was a well-defined and conceptualized project, it failed due to just one factor. United Airlines required automatic baggage handling systems and the airport was not well equipped with that technology, which led to a project failure.

PMO - Present-day Fulcrum in Industry

MR. PUSHKARAJ KALE
DIRECTOR - SALES
MICROSOFT

The project management office has over time become the fulcrum of all activities in almost all industrial sectors.

In his address at the inaugural function, Mr. Pushkaraj Kale spoke about the growth spurt in the demand for project managers in the industry.

He said that industrial sectors were fast waking up to the fact that project management is the key for successful project implementation.

"In Microsoft, we have focused on innovation to ensure sustainability and growth. And it is the project manager who ensures a smooth passage for innovations," he remarked.

He added that the relevance of project management has increased dramatically over the past one decade. That is now manifesting in an increase in demand of project management graduates.

Next Job Waves in Project Management

MR. K. SUBRAHMANIAN
VICE-CHAIRMAN AND MANAGING DIRECTOR
AFCONS INFRASTRUCTURE LTD., MUMBAI

Mr. K. Subrahmanian believes the importance of a project manager is slated to grow in the coming days. "In every project, whatever be the sector or field, executors have to walk an extra mile to succeed and derive satisfaction of a job well done," he said.

Speaking at the inaugural session, Mr. Subrahmanian shared his experiences in the field of infrastructure projects.

"My experiences over the years have proved three vital factors that play important roles in the success of any project. First, the ruthless simplification of any project during the planning stages; second, investing in people; and third, carving out the right environment to retain talent that is bubbling with enthusiasm and churns out high dividends in the long run," he remarks.

Elaborating on enthusiasm as an important prerequisite for a project manager, he added, "In projects in the construction sector, a lot of tasks have to be done by project managers themselves. Every project involves building relationships and networking. Only if a person is ready to walk the extra mile with enthusiasm can he or she ensure timely execution of a project."

Redefine Project Success

MR. G. S. TUTEJA
CHIEF SIGNAL & TELECOMMUNICATIONS ENGINEER
WESTERN RAILWAYS, MUMBAI

Project success cannot be reduced to one dimension; it is and has always been multi-dimensional wherein a host of variables have to be taken into account to determine whether the project has achieved its target.

Mr. G. S. Tuteja said that it would be a misnomer to consider that a project has been a success just because it has been executed in a given timeframe. "Take, for example, functions organized by event management companies. To say that the event was successful just because its execution satisfied the laid down parameters would be erroneous. What if the event failed to attract visitors? It would then have to be judged as a failed project," he remarked.

Similarly, in the engineering sector, a project would be termed unsuccessful if it failed to achieve the target for which it had been envisaged.

According to him, the dimensions of project success are how well the project schedule and the objectives have been met, whether the product performs expected functions, do customers use the product, and whether the customer is satisfied.

"A project is doomed if there is lack of a compelling business case, there is no agreed upon requirement specifications, lack of plan and communication, poor estimation, insufficient matrices, and the lack of control over progress," he said.

He urged practitioners to resist the temptation to adopt any new or multiple technologies without establishing whether such technologies will add any value to the project. People are more important than machines, ensure motivation through fair rewards and penalty systems, and keep communication channels transparent during project execution.

Provide a Place for the Unconventional

PROF. R. K. SHEVGAONKAR
DIRECTOR
INDIAN INSTITUTE OF TECHNOLOGY, DELHI

Prof. R. K. Shevgaonkar spoke from his experience of handling academic projects where he said the learning was on-the-job and there was no guarantee of success even if the standardized project management practices were followed.

He said a project was a concept and encouraged most activities within his institute to be carried out in project mode. It also called for a process of learning through practical experiences, developing leadership qualities, commitment, transparency, out-of-the-box thinking, and a credit sharing mechanism irrespective of success or failure in a project.

"Welcome unconventional ideas and accommodate them. Such learning are not taught in classrooms but it comes with experience which makes the work environment a lot more enjoyable," he said.

He added that the project manager's role needed to be carried out with humility. They must build his or her capacity to address issues from the smallest to the largest component of the system. "At any given point of time, there should be a resource in each project who is well versed with all the different components of the project and can act as a single point of contact during a crisis," he said.

"The idea is more important than the person from whom the idea is coming," he remarked. If such finer points are consciously discussed in academics, it will provide better perspectives to students.

The Focus on Government Interests

MS. RADHIKA RASTOGI, INDIAN ADMINISTRATIVE SERVICE
MANAGING DIRECTOR, MAHARASHTRA SMALL INDUSTRIES DEVELOPMENT CORPORATION LTD., MUMBAI

Ms. Radhika Rastogi emphasized on the importance of interactions between two parties involved in a project and stated that the communication process must be highly transparent, especially in the case of government projects. The primary aim must be to maximize government revenues by matching objectives of a project to its deliverables on time.

Speaking from her experience in public private partnerships (PPP) projects, Ms. Rastogi said, "A robust project management framework and a defined timeframe is the key to project success."

In a typical PPP project, private parties tend to outsource or collaborate with other private parties or smaller organizations that lead to revenue sharing. Ms. Rastogi believes that robs the government of its rightful share of revenues. "Private firms must abstain from exploiting loopholes and ensure collaboration with the government as a long-term engagement," she said.

Multi-dimensional Approach for Project Success

MR. ARUN BALAKRISHNAN
FORMER CHIEF MANAGING DIRECTOR
HINDUSTAN PETROLEUM CORPORATION LIMITED (HPCL)

"When project plans are crystal clear with appropriate job specifications and transactions that may ensue through various phases of execution, the project invariably sails through successfully," remarked Mr. Arun Balakrishnan.

Talking about his experience of setting up a refinery plant in Bhatinda, Punjab, Mr. Balakrishnan said that the first step that HPCL took after it decided to set up a refinery plant was to go for a joint venture to control cost escalation. That gave rise to HPCL-Mittal Energy Ltd.

After zeroing in on a barren patch of land in the agricultural belt of Punjab, the joint venture team initiated the project, identified resources, and made decisions on project operations.

HPCL hired a third party to monitor project progress that cut down three-four months of project time. Since changing over from project mode to operational mode was the most challenging task, HPCL hired people with operational background to facilitate these activities smoothly. Rigorous monitoring helped slash productive delays.

"But the most important thing that helped the project zoom through successfully was our focus on the welfare of thousands of site workers. Most of these workers were seasonal migrant workers. In order to ensure that they did not return to their home state during sowing and harvesting season, we approached NGOs who helped us provide accommodation, health facilities, and schooling for their children," he said.

He said it was the multidimensional approach adopted by the project managers that ensured the success of the Bhatinda refinery plant project.

SYSTEM DYNAMIC MODELING IN PROJECT MANAGEMENT

— Prof. Padmanav Acharya, associate professor, National Institute of Industrial Engineering (NITIE), Mumbai

The use of dynamic simulation through feedback control addresses managerial, organizational, and socio-economic problems in project management. System dynamics (SD) can be applied as a research tool to manage long-term plans, take policy decisions, analyze growth trends, and act as a tool to model large systems.

Business dynamics in information technology depends on hiring and attrition rates, and impacts productivity and delivery. Factors, such as rework due to errors and new work due to scope change, add to existing work, and contribute to delivery delay. The SD model encapsulates all these issues to establish quality and timely delivery to improve customer satisfaction. "This results in future orders and increases a company's business potential for more projects, which in turn leads to more jobs, and the cycle continues," explained Prof. Padmanav Acharya.

The SD model offers good insights on organizational and industry growth scenarios at regular intervals to build realistic plans for future projects.

"In IT projects, due to time and schedule constraints, 0.2 to 0.8 percent of the tasks can be safely passed as faulty. These are the acceptable error levels in projects," he said. Hence, the assumptions held in the SD modeling are that 80 percent of projects can get completed on time and 99.6 percent of projects offer quality.

For any project, Prof. Acharya recommends the integrated approach where the SD model is implemented at each project phase, whereas the critical path method and/or the program evaluation review technique is applied at the holistic project level.

"A more stable system is a more sustainable system, and the benefits derived by the top management from such SD models are inimitable," he concluded. The SD model is slowly rising as a powerful tool in project management.

PROJECT SIMULATION AND PLANNING SOFTWARE

— Prof. Tapan P. Bagchi, director, Post Graduate Diploma in Management, KIIT University (formerly Kalinga Institute of Industrial Technology), Bhubaneswar

Planning is the first step in project management that provides sponsors and stakeholders with information on all phases of the project right from initiation to execution.

Data simulation is a useful tool at this stage to come up with expected performances like time and cost overrun probabilities, and project schedules. The program evaluation review technique (PERT) is a project management tool that is based on approximation, whereas the critical path method (CPM) takes into account deterministic estimates. It is important to quantify risks before the application of tools such as PERT.

"We have to begin with standards and data provided by practitioners. The PERT methodology is easier than CPM as it facilitates the organization to move from project authorization to scope, work break down structure, and estimations with immediate effect," stated Prof. Tapan Bagchi.

He illustrates the application of data simulation during "project crashing". Crashing is a method used to shorten the project duration by reducing the time of one or more of the critical project activities to less than its normal activity time. Expedite activities by applying more resources to the project, so that crashing costs do not exceed the original project costs. Crash causes a ripple effect and hence it is important to choose the least expensive method to crash a project.

The key is to list all the critical paths and use a heuristic method to attain targets though this methodology does not guarantee an optimal solution always.

"There was a proposal to build a seven-storied building with a projected cost of Rs. 10 crore. Since an adequate number of sponsors could not be identified, the plan was cut down to a three-storied building. However, the contractor explained that the costs will reduce by a mere 15 percent as the maximum costs will go towards laying the building's foundation. Therefore, in certain cases, crashing does not work," Prof. Bagchi explained.

RISK MANAGEMENT RESEARCH IS THE NEED OF THE HOUR

— Prof. Krishna Moorthy, dean, Sunpharma Academy, Vadodra and Mr. Vinit Thakur, independent consultant and faculty, T. A. Pai Management Institute, Manipal
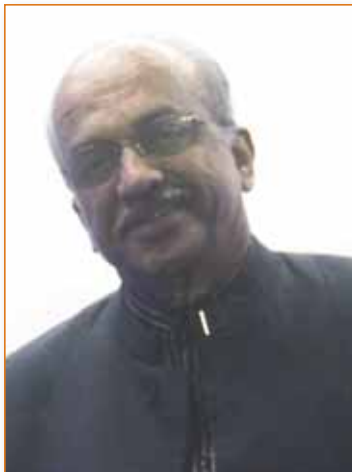
A project faces many variables from the inception to execution stage that may affect its smooth transition. Risk factors that are analyzed and studied at the drawing board may turn out to be a powerful strategy for success.

Explaining the importance of an emerging field, called risk management analysis, Prof. Krishna Moorthy and Mr. Vinit Thakur urged researchers to focus not just on risk management methods or tools but also on innocuous and taken-for-granted issues that have the latent potential to transform themselves into risk factors and subsequently hamper project execution.

Delineating the curriculum of risk management being taught in varsities across the world, Prof. Moorthy emphasized the need to incorporate intensive risk management modules at the post-graduate level of project management courses.

Defining risk as a probability of events with a power to unleash an adverse cascading impact on a project chain, he said that variables with latent potentiality of 'becoming risk factors' should not be confused with issues that are generically classified, as problems or threats.

"Threats and problems are easily identifiable but risk factors can only be judged; in many cases, they are not only grounded in subjectivity of the analysts but they are also relative in nature vis-a-vis space and time," he explained. He said it has become important for the academia to use case studies and modern audio-visual teaching aids while disseminating knowledge on risk management.

Mr. Thakur said that he introduces risk management or risk analysis to students by way of the popular childhood game of snakes and ladders. He said that students can effectively comprehend the fundamentals of risk management if they are placed in a "risk-like situation or a sort of controlled and playful, simulated environment. This teaching process helps the student in learning how to identify probable risk factors. These observations can later be jotted down in a risk register, which helps during actual project planning."

SOFT SKILLS A MUST TO TACKLE PROJECT COMPLEXITIES

— Prof. Tapash Kumar Ganguly, senior professor and dean-executive education, National Institute of Construction Management and Research (NICMAR), Pune

Changes in the technological landscape over the years have made projects more complex than before. Growing budgets, varied stakeholder interests often colliding with each other, and unknown risk factors are leading to higher complexity.

Prof. Tapash Kumar Ganguly said, "It is important to understand that an increase in 'disorder and instability' is corollary to complex projects that have huge investments."

Stressing on the need for a newer definition of project management, Prof. Ganguly citing examples of highway construction cases in USA, pointed out that technicality and ensuing complexity even though interlinked, 'are two different entities'.

Prof. Ganguly emphasized the need to take into consideration socio-cultural variables which were earlier not given much thought while visualizing, planning, or executing a project.

"Earlier everybody spoke about only time and cost while discussing the modalities of a project. Even today we speak in the same linear manner… nobody talks about the stakeholders and their varied interests," he added.

Culture is an extremely problematic subject, as also other social variables such as linguistic issues in a region. "The socio-cultural map is extremely complex because intangible forces operate at a different level. And thus the time has come to create and visualize project models like the 'diamond model' that encapsulates measurement of not just political vagaries but also social factors pertaining to people of the region," he commented.

Project executors need the right soft skills to help them cope with the complexities arising out of the interplay of these socio-economic forces.

Introduction of Project Management Curriculum Framework

PROF. VIJAY KANABAR, PROFESSOR AND DIRECTOR OF PROJECT MANAGEMENT PROGRAMS AT BOSTON UNIVERSITY, USA

Prof. Vijay Kanabar held an open discussion with project management faculty members of various institutes where he stressed on the need to review the existing curriculum in colleges.

"There will be 15.7 million new project management jobs globally across seven project industries by 2020. The increase in the rate of projects being sanctioned in recent years has called for inclusion of project management studies at a larger scale with immediate effect," he said, setting the tone for the discussion. So, will a 20-week baseline course be a good start to introduce the PMI global framework in India?

Under PMI Curriculum and Resources, a curriculum framework was launched for project management at the under graduate level in India. The framework offers 30 knowledge modules which can be combined in different ways to design up to eight project management courses.

He also underscored the importance of including soft skills and basic knowledge of region-specific, cultural sensitivities in today's project managers to help them create a framework for day-to-day interpersonal communication at the workplace.

Talking from his experience, Prof. Kanabar said that while project management courses can be integrated into existing courses, those need to be reconstituted into small modules for better effectiveness. "The idea is to offer the course as a set of recommendations rather than as prescriptives," he added.

Answering queries from faculty members, he said the course has been designed to be flexible and modular so that institutes can incorporate different elements into it. Replying to a query, he said localization was important and the curriculum has taken into account regional demographics and cultural nuances. "Ethics is in one of the modules but if an institute wants to incorporate ethics with the study of law, it is free to do so," he explained.

Prof. Kanabar concluded that most models being learnt are not used in the industry, yet they are recommended to give students a good perspective through historical data. "What you teach in theory can become relevant at any point in one's work life."

RAC AWARDS PRESENTATION

The award winners flanked by Mr. Raj Kalady and Prof. K. N. Satyanarayana on the left & Prof. Karuna Jain & Prof. R. K. Shevgaonkar on the right

YOUNG RESEARCHER AWARD

Prof. Uma Maheshwari Professor, Indian Institute of Technology, Delhi

Prof. Ganesh A. Devkar Associate professor, Centre for Environmental Planning and Technology University, Ahmedabad

Prof. Vijaya Dixit Assistant professor, National Institute of Industrial Engineering, Mumbai

DISTINGUISHED SCHOLAR AWARD

Prof. Anil Sawhney Associate dean and professor, RICS School of Built Environment, Amity University , Noida

Prof. K. Chandrashekhar Iyer Professor, Indian Institute of Technology, Delhi

Project Management Research: Trends & Opportunities

PANELISTS:

Prof. Shankar Sankaran, professor, Organizational Management, University of Technology, Sydney

Prof. Vijay Kanabar, professor & director of project management programs, Boston University, USA

Prof. M. Korgaonker, director general, National Institute of Construction Management & Research (NICMAR), Pune

Prof. Krishna Moorthy, dean, Sunpharma Academy, Vadodara

MODERATOR:

Prof. L. Ganapathy, designation, National Institute of Industrial Engineering (NITIE), Mumbai

Prof. Ganapathy – Methods such as Critical Path Method and Program Evaluation Review Technique are project management techniques that are fast growing redundant, especially in the case of highly complex projects in healthcare, education, employment, and poverty alleviation. The complexity arises not just because there are too many stakeholders and multiple agendas for a single project but also because the interplay of varied forces involving people give birth to stresses that cannot be comprehended by the prevailing dominant research models.

The time has come to study different paradigms which will provide fresh viewpoints. The variables in a given project intertwined with social phenomena are one too many; solutions in such complex scenarios cannot be sought by adopting a mechanistic model. Instead, project management researchers must acquaint themselves with schools of thought that are not reductionist in nature.

Prof. Sankaran – What does it take at a strategic level to deliver or publish journals in project management research? The simple approach of being aware of the paradigm we work in without describing methodologies of research to fellow researchers and improving self reporting are the key to building a research trend. Project management is not a tactical tool but a link between strategy, portfolio, programs, and projects, which are all potential areas of research.

Interactions with project schedules and systems, accompanied by an analysis of management review process, are methodologies to encourage research in project management. Academicians and practitioners need to work together to reinvent research through on-the-job studies and an analysis of project management research papers,

especially in areas of project management marketing and project management sustainability.

Prof. Kanabar – The fundamental task is to bridge the gap between the real world and research. Research on software development using agile techniques in project management in a real world perspective is a good start, as agile methods are found to be incompatible with project management practices currently.

Project management as a discipline has matured and a dedicated journal on project management education is essential in today's time.

With the launch of PMI's project management curriculum in India, educators hope to develop project management education significantly by building a knowledge base, which will provide opportunities to conduct research in project management.

Prof. Korgaonker – In the current scenario, factors contributing to a project's success are vague, and conceptualization and sustainability of projects need to be reflected on frequently. Scope correction, integration management, and quality frameworks to understand projects, and configuration management require in-depth research.

NICMAR has deliberately remained a post graduate institute to focus primarily on research in project management. We want to know what the industry wants so that we can deliver industry specific solutions through research.

Academic institutes interested in dedicating themselves to research must come together and create a common forum to promote research.

Prof. Kanabar – This idea is similar to the incubator center setup at Boston University with 20 odd companies investing in it to aid research activities at the institute on a continuous basis.

Prof. Moorthy – There is not a single Indian case study being used in academics that depicts successful project management practices. It shows the need for a major initiative to promote project management research.

Project management research must also focus on different domains.

Other interesting areas of potential research are the Public Private Partnership (PPP) model, study of health and safety environment in projects, project ethics, and project quality.

BEST STUDENT TECHNICAL PAPER — Research Trends in Project Management: A Review

- **Mr. Milind Padalkar, doctoral student, Indian Institute of Management (IIM), Kozhikode**
- **Prof. Saji Gopinath, professor, IIM Kozhikode**

Mr. Milind Padalkar, under the supervision of Prof. Saji Gopinath, carried out a meta-analytical study of the various researches that have linkages with project management or operations management.

Mr. Padalkar said that while there is an abundance of studies in operations management, research in project management is sparse. "The problem probably lies in project management's eclectic inter-disciplinary nature, which makes it extremely diffused," he remarked.

He averred that the growing interest amongst academicians in project management may help in filling the existing vacuum.

"Most current researches are empirical studies and tend to be anecdotal or heuristic. There are not many meta-analytic studies. It is extremely important that project management research is put under the lens and researchers identify limitations and shortcomings of methodologies," he added.

BEST TECHNICAL PAPER — The Role of BIM in Construction Projects

- **Prof. Shankar Sankaran, professor, Organizational Management, University of Technology, Sydney**
- **Prof. Perry Forsythe, faculty member, School of the Built Environment, University of Technology, Sydney, Australia**
- **Prof. Christopher Biesenthal, faculty member, School of the Built Environment, University of Technology, Sydney, Australia**
- **Prof. Hariharan Subramanyan, faculty member, Larsen and Toubro Institute of Project Management (L&T IPM), Vadodra**

Information asymmetry occurs when one party in a project has more information that influences the decision making, and in the process, gains financial advantage over the others.

A collaborative research was carried out a team of researchers from the University of Technology, Sydney, and L&T Institute of Project Management, Vadodra in Australia and India to ascertain the role that Building Information Modelling (BIM) can play in minimizing information imbalances between contractors and clients.

Prof. Sankaran said that while there is a gap between theory and practice, the usage of BIM manages to create an open environment which may pave the way from the existing contractual system to a conducive system where there is better understanding between the parties.

Prof. Subramanyan said that while clients interviewed in Australia showed a keen interest in BIM, in India, except for large developers, most clients did not evince any interest. "This shows that BIM penetration in India is low and contractors are unwilling to share information. But the trend reveals that there will be a high usage of BIM in the coming days," he concluded.

TRACK 1 - CONSTRUCTION AND INFRASTRUCTURE

Mr. Venkateswararao Surati, manager & Mr. Narismhan Raghvendran, engineering trainee, L&T Construction

The construction of roads and bridges in a congested road is a nightmare for both commuters and constructors. The construction of an elevated corridor in Kolkata along Kazi Nazrul Islam Sarani from Kestopur to Joramand is a case in point where engineers used innovative logistic plans, approaches, and techniques for project success.

Mr. Surati said that barring the foundation and superstructure that comprised deck slabs, the engineer employed structural steel for pile caps, anchor frames etc. They transported pre-fabricated steel components from the fabrication yard to the transit site in modified trailers.

"Each employee's role was identified and assigned a special cell to interact with government agencies and stakeholders to ensure smooth execution," he added.

Ms. Nishtha Jain, student, Indian Institute of Management, Kozhikode

The construction industry in India has been slow to accommodating newer methods because of its own deep-rooted cultural norms. It's hence no surprise that this industry experiences a large number of delays and spiraling of costs.

Ms. Nishtha Jain carried out a two-month-long study in a residential project in Chennai to ferret out alternative and more streamlined management practices.

"There has not been much research in India, and the primary focus of this study was to ascertain the feasibility of adopting the Lean construction model in project execution," she said. She added that the project manager plays a pivotal role in the implementation of Lean methods.

Mr. Bhavnesh Agale, student, NITIE, Mumbai

The Bandra Worli Sea Link project was commissioned by the Maharashtra State Road Development Corporation and built by Hindustan Construction Company. The sea link has cut down travel time for commuters. However, the project was delayed by over five years.

The project received only 4.7 hectares of land as against 27 hectares due to environmental concerns. The state government sanctioned only Rs. 100 crore as against Rs. 580 crore that was proposed initially, which led HCC to take loans.

Delays in payments, failure to impose security deposits on contractors, non-alignment of contract tenure to project processes, and work stoppage for nearly 18 months due to change in the contractor led to deficiency in contractor performance.

"To overcome challenges in such major projects, there needs to be a cost benefit analysis, coordination amongst stakeholders and contractors, efficient documentation, and environment impact assessment in the initial phase itself. There must be project monitoring mechanisms to avoid time and cost overruns," said Mr. Agale.

Prof. Swapnil Wanjari, assistant professor, Visvesvaraya National Institute of Technology, Nagpur

In the construction industry, the planning of resources is an extremely complex task, especially manpower planning because of the need for varied skills at various phases.

Prof. Swapnil Wanjari, along with postgraduate student Mr. Alex Jose, carried out a study to find ways to reduce manpower wastage. The study revealed that the general manpower requirement during project execution delineates a trapezoidal structure wherein the onset and the end phase required minimum and the middle phase required maximum human resources.

The researchers developed an algorithm to solve the resource leveling issue using trapezoidal leveling techniques. These techniques helped bring down the peak manpower demand per day in a construction project from 21 to 13, and streamlined the planning process.

Mr. Ganesh Shinde, student, and Prof. Vivekanand Khanapuri, associate professor, NITIE

Mr. Ganesh Shinde, under the supervision of Prof. Vivekanand Khanapuri, studied issues that plague the nuclear power plant sector in the country and what must go into their planning.

The researchers stressed on the need to abstain from just standard appraisal techniques in such large-scale technical projects. Since nuclear plant projects carry risks not commonly found in other projects, it was extremely necessary to adopt a holistic approach for project risk management appraisal. Transparency with regard to information flow to the indigenous people of the area and a framework to ensure justice were key to success.

Citing the Kudankulam Nuclear Power Plant as a case in point, they said the project faced hurdles due to faulty government policies, including misrepresentation of facts to local citizens and not being transparent about the safety analysis report. Such projects must incorporate a study of political, social, technical, and economic risks.

Mr. Upendra Singh Kushwah, student, NITIE, Mumbai

Tele-density is low in India, with disparity between rural and urban areas. Mr. Upendra Singh Kushwah highlighted the challenges in setting up and running telecom towers.

Seventy percent of the approximately 400,000 mobile towers in India face electrical grid outages, forcing them to use diesel generators which lead to cost fluctuations. Operators need to take numerous clearances. Issues around pilferage of diesel also hinder operational efficiency.

"Renewable energy is an alternative, and the Department of Telecom has issued a deadline for service providers to reduce carbon emissions from mobile networks by 17 percent by 2019.Along with easy bank financing, softer interest rates, longer loan tenures, and the setting up of a single government agency for speedy approvals and certification of towers will ease some of the problems for telecom companies," he said.

Prof. Vivekanand Khanapuri, associate professor, and Mr. Amol Dudhabale & Mr. Ritu Ranjan, students, NITIE, Mumbai

With rural to urban migration growing, cities in India are facing more pressure. NITIE students, Mr. Amol Dudbabale and Mr. Ritu Ranjan, under the supervision of Prof. Vivekanand Khanapuri, studied the challenges in the implementation of Bus-based Rapid Transportation System (BRTS) in Pune and Ahmedabad.

They observed that while in Ahmedabad there was constant interaction with the various stakeholders during project implementation, in Pune, the stakeholders were kept out of the decision-making process.

The Pune project was hastily initiated without any planning in a bid to stem the lapse of sanctioned funds. Safety audits were not carried out, with the result that the city experiences more accidents today.

"On the other hand, in Ahmedabad, the BRTS has been a success because apart from planning, strong linkages were created with the stakeholders during project execution," the research concluded.

Prof. V.P.S. Nihar Nanyam, assistant professor, RICS School of Built Environment, Amity University, Noida

The construction industry has been facing flak as over 40 per cent of projects face time overruns ranging from one to 252 months.

Comparative studies show that development projects in countries like China, Bangladesh, and Thailand outshine India with respect to schedule performance.

Prof. V. P. S. Nihar Nanyam cited improper planning and budgeting, poor coordination, and inefficient monitoring as the main reasons behind time overruns.

Discussing a research carried out on a multi-storied housing project in Hyderabad, he said optimal selection of construction technology, framework, and crew is required during the planning stage.

He recommended the use of simulation tools such as Simphony to create prototypes that mimic different scenarios and gain a better understanding of workflow patterns, and identify bottlenecks and delays in the workflow schedule at the onset of project execution.

Prof. Tapash Kumar Ganguli, senior professor and dean-executive education, NICMAR, Pune

To cope with the fast changing business environment, organizations want team managers to not only have the maturity to lead people but also think, visualize, and empathize while executing projects.

"The need of the hour is training and development at all levels so as to improve the skills, attitude, knowledge, and competencies of individuals," said Prof. Tapash Ganguli.

He stressed on the need for a continual process of training and refresher courses comprising attitudinal development of project managers.

"The mantra is: 'Train people now or perish.' Studies have shown that in the next five years, Gen Y will need to not just upgrade hard skills but also acquire new attitudinal norms."

Ms. Anuradha Alladi, project manager, Tata Consultancy Services

Stakeholder management in construction calls for defined processes that can identify and capture stakeholders needs, take their inputs, support, and buy-ins.

Stakeholder engagement is measured through repeated interactions. Project managers must devise a strategy to build standardized processes derived from consistent behavior analysis of stakeholders.

Ms. Anuradha Alladi sets out a six-step stakeholder engagement process:

a. Perceive the interest in communication or interaction of involved parties.

b. Identify stakeholders on the basis of their behavior throughout the project lifecycle.

c. Characterize the nature of behavior (attitude) to analyze and plan projects.

d. Strengthen engagement capabilities between project teams and stakeholders.

e. Design the engagement process by involving all the stakeholders to partner, engage, monitor, and empower project activities.

f. Derive methodologies to engage with stakeholders and generate reviews and reports to address and identify issues in communication, if any.

Prof. Ganesh Devkar, associate professor, Center for Environmental Planning and Technology University

Prof. Ganesh Devkar assessed processes in public private partnership (PPP) projects using a case study from the National Highways Authority of India (NHAI).

In the NHAI project, the project identification phase involved a feasibility study and a preliminary project report. The team based project development on the feasibility report. A transaction advisor took care of procurement processes, while the supervisor consultant monitored project execution. A project implementation unit was set up to oversee client relationship management and an individual consultant helped with technical design reviews.

Half-yearly appraisals of the PPP process were conducted, along with stakeholder and risk management, balancing political and socio-cultural environments, and project governance to ensure better value for money.

"PPP is a business-driven procurement process that helps build capabilities to meet challenges. Monitoring large and long-term contracts while managing stakeholders and governance issues to develop feasible strategies is the need of the hour for PPP projects."

Prof. Jonardan Koner and Prof. Mona Shah, NICMAR, Pune

Across the world, large infrastructure projects are facing challenges that may not necessarily arise at the project level. Instead, the challenges may lie at the institutional level where proposals are faulty at its nascent stage.

Not many studies have focused on this aspect and there is not enough literature on it from the project management perspective.

The two NICMAR professors carried out an empirical study of thermal based and ultra mega power projects of Rs. 1,000 crore and above to identify the plausible causes of delays and cost overruns.

The findings showed a distinct relationship between institutional level failures and delays, which had a cascading effect on costs. The study also showed that improper planning led to cost overruns.

Prof. Vijaya Dixit, assistant professor, NITIE

This is the time for customization where companies accommodate customer feedback in production.

Prof. Vijaya Dixit has commenced a study to explore the facets and linkages in the rising trend of 'Engineer to Order' or customization, in an attempt to measure benefits arising out of this new phenomenon.

Speaking about her study which is still in incipient stage, Prof. Dixit sought the opinion of researchers and project management faculty members in the audience.

Intending to focus on ship-building yards as the key subject for the study, Prof. Dixit said that ship owners get involved right from the genesis of the project when they place an order for a vessel.

"The study would ascertain benefits customers derive from customer knowledge management and the level of involvement from basic design to providing advice during the execution phase," she said.

Mr. Vishwas Sharma, head - planning cost and contracts, L&T Shipbuilding, and Mr. Sujit Phunde, manager, L&T Special Steel & Heavy Forging

Indian shipyards in 2005-07 were hoping to bag major international ship-building orders. However, they lost the opportunity to other international players.

While the key reason at the surface level seems to be low productivity in ship-building activities, the other related cause is the inability to make appropriate projection of productivity targets.

Mr. Vishwas Sharma said Indian shipyards lack productivity calculations to indicate the effectiveness of production engineering, planning, and manufacturing operations, and have thus failed to win bids despite labor cost being almost 5-8 times lower than South Korea and Japan.

"While on the one hand, low productivity in ship-building activities had a cascading effect on quality, modification, and rework, project management did not take cognizance of the productivity aspect that also had an adverse impact."

Mr. Parin Gosar and Ms. Gayatri Soundarajan, students, project management, Veermata Jeejabai Technological Institute, Mumbai, and Mr. P.C. Sehgal, ex-director, Mumbai Rail Vikas Corporation, Western Railway

Shrinking spaces and looming costs in new projects initiation have once again brought to fore the need to relook at existing projects and find ways in which they can be upgraded or refurbished with prevailing resources, thereby slashing down costs and risks.

The researchers presented two cases wherein 'renovation projects' not only enhanced the existing projects but also made value addition in several areas.

Elucidating on case studies from the hospitality and transportation sectors, they pointed out that both the cases helped grow the sector in the long run.

In hospitality, there is growing consensus that incorporating new facilities in existing infrastructure works better than investing in new construction. In transportation, the study revealed that the suburban railway's project to upgrade coaches, coupled with an increase in the number of rakes, led to a jump in the number of commuters.

TRACK 2- RESEARCH TRENDS IN PROJECT MANAGEMENT – A REVIEW

Ms. Adity Bhushan, senior manager, Biocon Ltd.

A typical pharmaceutical project has teams from research and development, regulatory, production, quality, and IT working together. Projects that follow principles of Lean methodology must identify and eliminate wasteful activities that add to project cost and time without adding any value.

Ms. Bhushan said Lean helps project managers to understand the purpose behind creating the intended result, define a process to provide methods to reach that end result, and manage people involved in the project.

"Since project and program management have yet to be established as a special discipline in the pharmaceutical industry, the focus is on adopting best practices from other industries," she explained.

The standardization of project management processes to achieve project excellence at Biocon has led to an organization-wide change with more transparency and uniformity, coupled with consistency in delivery, improved customer satisfaction, reduction in project failure rate, decrease in costs and redundancy of documents, better accountability with increased efficiency, and credibility of the organization.

Prof. Jonardan Koner, professor, NICMAR

The need to study the impact of Enterprise Resource Planning (ERP) in infrastructure project management is fast rising, as an alarming 74 percent of ERP projects fail. The reasons for failure could be inefficient manpower planning and communication, inadequate project monitoring techniques, or contractor-client differences. Also, increasing complexity means the project control process is variable and time-consuming.

Prof. Jonardan Koner used the Udhampur Srinagar Baramullah Rail Link project to illustrate how the implementation of digital video monitoring technology helped cut down project time and improved project monitoring. In this case, the project site's Internet Protocol address was connected to the existing customized ERP system to enable online monitoring from the corporate office.

It also eliminated the need to travel to the site for inspection; made data access possible from multiple locations; and helped in monitoring progress, safety, and workers' performance.

Prof. Seshadri Viswanath, professor, Shri Vile Parle Kelavani Mandal's Narsee Monjee Institute of Management Studies

New hi-tech products or services can be game changers for an organization but implementing such changes needs to be carefully planned, especially if new technology is being used and the product is being developed in-house.

Prof. Seshadri Vishwanath cites the case of a motor company where the cost was reduced by 30 percent when processes were modified using new raw materials. The company's R&D also developed a new process technique that contributed to 10 percent saving in the overall cost. The motor division ran a prototype under R&D surveillance, which was later commercialized.

The factors that contributed to project success were in-house high performance R&D labs, efficient networking and stakeholder management, and middle management leverage to approach top management for approvals.

"Good processes, a clear business case, an internal project champion, and effective people management are the key to driving large-scale projects," said Prof. Vishwanath.

TRACK 3 – INFORMATION TECHNOLOGY

Mr. Mayur Nawale, student, Veermata Jijabai Technological Institute, Mumbai

Small and medium enterprises will benefit from the introduction of standardized project management practices in their daily operations through the productivity improvement tool (PIT). These tools provide tailored solutions for project planning, estimations, data analysis, reports, and project monitoring.

"Data entry of project details into the PIT tool must be made mandatory. This facilitates the generation of daily/weekly reports to analyze lags and leads, identification of non-productive time of employees through actual versus estimated time charts, and the generation of pie chart reports on time lags between different project phases," said Mr. Mayur Nawale.

It enables the project manager to establish a project management life cycle, revise processes, estimate actual time taken to complete a task, identify bottlenecks, and set benchmarks for future projects.

TRACK 4 – ORGANIZATIONAL PROJECTS

Prof. Roger D. H. Warburton, associate professor, Metropolitan College, Boston, USA

Earned value management (EVM) is a well-known technique to control time and cost of a project but there is very little theory to support schedule estimations. EVM provides schedule variance and schedule performance index (SPI) only as early warning signs of cost overruns. Since it cannot predict schedule delays, EVM cannot answer questions like "How long will the project take to finish?"

Earned schedule relies on a simple assumption - a constant labor rate, which places a restriction on projects in which labor curves are more S shaped.

An effective theoretical model was required that would use real-time data to make realistic calculations of the final project schedule.

"SPI is constant at only the initial phase of a project. Thus, by calculating from early SPI we can arrive at revised schedules, which in turn would provide an estimate of the final project duration," said Prof. Warburton.

This methodology is better than existing schedule prediction models and helps in understanding scheduling concepts better.

Mr. Raju Rao, founder & principal consultant, Xtraplus Solutions

A typical scale-up project can be large and complex with diverse stakeholders, but the approach of scale-up projects of different industries must be different.

Scaling up and assessing project complexity through organizational project management (OPM) can be distributed across project, program, and portfolio management domains.

OPM is feasible for both procedure as well as principle based scaling up. A portfolio will have multiple programs, which in turn, will have numerous projects.

"Scaling up of McDonald's is simple where the base model remains the same and just the processes are replicated. The proposed OPM structure will be a portfolio, with each city taken as a program," explained Mr. Raju Rao.

A proposed OPM structure for a public private partnership, however, means managing dissimilar projects through programs and portfolios. Such projects have to take into account factors such as project size, outcomes, priorities, implementation process, work culture, and capabilities factors.

Prof. Chakradhar Iyyunni, faculty member, Larsen & Toubro Institute of Project Management and guest lecturer, NITIE

For large portfolios, organizational support is a critical success factor. Portfolio evaluation helps analyze the capability to handle a portfolio, besides identifying and managing risks.

Allocating the best resources, making working capital easily available, senior management's involvement in the project, and hassle-free inter-departmental interactions must be prioritized.

Project managers who are not well versed with prioritization and have large accounts to handle tend to falter when risks are manifold. Risks to projects from lower prioritization result in a delayed organizational response.

Portfolio management involves positive risk such as research and development,and negative risk such as an inefficient or non-performing team.

"It is important to conduct portfoliorebalancing through multi-tasking and flexibility to outsourcing. There must also be a correlation between portfolio management and organizational design and delivery excellence models."

TRACK 5 – SOCIAL AND PUBLIC SYSTEMS

Prof. Ramakrishna Nallathiga, associate professor and head - real estate and urban infrastructure management, NICMAR, and Ms. Aarti Wakhloo and Mr. Avirup Bhattacharya, students, NICMAR post-graduate program

Despite a majority of infrastructure projects in India witnessing big delays, not many studies have been carried out to capture delays from the perception of stakeholders.

Prof. Nallathiga, along with post-graduate students, Ms. Wakhloo and Mr. Bhattacharya, explored the factors behind project delays from the stakeholder's point of view. They showed how the use of the relative importance index demonstrated a lack of co-operation among project stakeholders.

"Our study also showed that the clash of perceptions, especially in infrastructure projects, can be mitigated through confidence building and trust developing measures," they said.

The study also brought to fore the need for an attitudinal change during planning, bidding, and implementation of infrastructure projects, and the setting up of a monitoring mechanism to focus on disputes among project stakeholders.

Prof. Rupesh Kumar Pati, associate professor, IIM Kozhikode & Ms. Nishtha Jain and Mr. Vipin Kumar, students, IIM Kozhikode

The ambitious Aadhar project that set out to provide a unique identity number to each Indian citizen has been running into rough weather since its inception with risks ranging from duplication and fake identities to its very implementation.

Under the supervision of Prof. Rupesh Kumar Pati, Ms. Jain and Mr. Kumar carried out a study to find the factors that have impacted the project.The study used secondary data from newspaper articles, research papers, and government reports.

The researchers said the main challenges were around the storage, monitoring, and controlling of data. Moreover, since citizens already had different identity cards, they did not see the need for an Aadhar card.The use of bio-metrics for data also proved to be fallible in nature. These problems have made it extremely important to review the project mechanisms and find solutions to ensure robustness in enrollment, scheme linkages, and security.

Mr. Samrudh Hegde Desai, business development manager, AlterEnergyz, and Prof. Purva Hegde Desai, professor, department of management studies, Goa University

Mounds of garbage strewn across street corners in Goa is affecting not just the flow of tourists but also causing environmental hazards.

Mr. Samrudh Hegde Desai said successive governments have focused on big waste treatment plants, and not taken a holistic view of the problem.

Conventional waste management programs have failed, as most treatment plants lack capacity and the waste collection method is faulty due to in-built limitations.

"We carried out a study of alternative waste disposal models. Organic waste management through a decentralized system of setting up bio-gas plants can be an effective way to tackle biodegradable waste." To transform Goa into a "Green state", there needs to be greater awareness of such alternative models.

TRACK 6 – EMERGENCY ISSUES IN PROJECT MANAGEMENT

Prof. Kappagomtula Lakshminarasimham Chandrasekhar, professor, VIT University, Vellore

China has unique customs and techniques of social interaction, such as preferring to deal with only those people and things whose knowledge they possess beforehand.

"Chinese teachings follow the Confucius doctrine that emphasizes on cultivating morality, interpersonal relationships, family and group orientation, respect for age and hierarchy, and avoidance of conflicts," said Prof. Chandrasekhar.

In projects, apart from the typical managerial functions of planning, staffing, and communications, there are also socio-cultural factors that determine outcome.

"Accomplishments of project activities are purely based on relationships. China is a collective society, where individuality has no place and group dynamics play a big role," he said.

Through this examination of Chinese socio-cultural factors, Prof. Chandrashekhar explained the reasons behind the success of infrastructure projects in China.

Prof. Hariharan Subramanyan, faculty member, Larsen and Toubro Institute of Project Management, Vadodra

Engineering colleges in India are bound by criteria set by the National Board of Accreditation (NBA) that promotes quality technical education. In 2013, the NBA laid down certain additional assessments for accreditation.

Institutes require "graduate attributes" for a course to be considered for accreditation such as engineering knowledge, problem analysis, environmental sustainability, ethics, communication, project management, and finance.

Focusing on the role of project management and finance in engineering programs, Prof. Hariharan Subramanyan said there needs to be an analysis to understand whether the current project management knowledge being offered meets industry expectations.

He said the curriculum is designed to offer flexibility in concepts of project organization, project initiation, and planning.

Recommendations were made on the need for hands-on project management tools and case analysis study, building project management knowledge at the curriculum design level, and emphasis on experimental learning.

Mr. Asim Prasad, deputy general manager, GAIL (India) Ltd.

Complexity, dynamism, diversity, limited resources, risks, and uniqueness are typical characteristics of an infrastructure project. Project executives need to adopt an open approach to manage such dynamics in infrastructure projects in India.

Project formulation is through stakeholder analysis where stakeholders are identified, grouped, and prioritized to monitor and direct their requirements into the project plan. The degree of agility of a project is directly related to stakeholder analysis.

Project agility has a direct relationship with project risks, and mechanism to assess, reviews, and mitigate risks. Risks are then mapped to the work breakdown structure. The more the levels in which the project is decomposed, the greater is the project agility.

"When projects move from execution to the operational phase, agility takes full shape, stakeholders enjoy success of the project, internal stakeholders derive benefits, and best practices and a lesson learnt exercise is formulated for the project team," explained Mr. Asim Prasad.

TRACK 7 – MANAGING DYNAMIC PROJECT ENVIRONMENT

Mr. Raju Rao, founder and principal consultant, Xtraplus Solutions

The work breakdown structure (WBS) is a basic technique of bifurcating work on the basis of deliverables. However, a survey on WBS depicted a gap between the processes being practiced and has been prescribed in PMI's *A Guide to Project Management Body of Knowledge (PMBOK® Guide)*. The differences are mainly due to standards not being able to be applied to domain specific situations.

Mr. Raju Rao finds that WBS interfaces with knowledge areas such as time, cost, quality, risk, and procurement.

He recommends dynamic WBS that structures the WBS components in different ways at different project stages so that practitioners can use any approach that best suits the parameters they are analyzing or the objective they are seeking. "A project manager must structure and re-classify WBS elements, also known as work packages in a work breakdown structure, based on the objective. A similar approach can be followed in other knowledge areas with different descriptions for each technique," he said.

Prof. Saroj Koul, professor, OP Jindal Global University, Haryana

As India aims to increase its steel production, the focus is on the success of new plant projects and expansion of existing ones. The identification and assessment of risks and approvals will play a big role.

Risks at the pre-project phase involves activities like selection of product, capacity, and process route, and the adoption of new or cheaper technology. Delay in regulatory and statutory compliances, non-availability of sufficient finance, and manpower are a few other risks.

Unfavorable health, safety, and environment during project execution, slow or insufficient fund flow, variation in forex rate, and credit and liquidity contribute to risks at the project stage.

Post project risks include unsecured availability of raw materials, downward trend in the economy, less access to technology upgrades, business competition, and changing government policies.

Once risks are identified, the key is to maintain profitability of steel manufacturing units irrespective of the existing risks. The risk management factors must be integrated to balance the focus on cost and optimize value and supply chains.

Mr. Atul V., senior general manager, SMS India Ltd.

India is aiming to produce over 250 million tons of steel and gain a larger share of the world market.

The Government of India is encouraging public and private sectors to improve capabilities by promoting a diverse product portfolio mix. The two pronounced forms of finished steel are long and flat products. In India, there is demand for both types. "The private sector produces both types, whereas the public sector produces either flat or long steel," he said.

For integrated steel plants in the private sector, it is necessary to study the risk factors during capacity enhancements, followed by an analysis and implementation of strategies to mitigate risks.

Creating a product portfolio mix of multiple or differentiated supply chains that meet different market needs will provide stability and enable producers to meet emerging demand.

Project Management Regional Conference, Pune

28 February, 2015, Novotel, Pune

Dear Readers,

The recently concluded PMI India Regional Conference, hosted by PMI Pune-Deccan India Chapter and co-hosted by PMI Mumbai India Chapter, was as much an occasion to discuss ways in which project management can contribute to our country's progress as it was an occasion to celebrate exemplary projects.

The whole world is today looking at India with high expectations. Whether it's the new central government's highly ambitious national programs or already executed nation-building projects that have shown our expertise to the world, viz. Mangalyaan, Delhi Metro, projects in oil and natural gas, or in the automobile sector. It is now a national imperative to continue on this journey of success and take India to the next level of sustainable economic growth and help build the nation.

The conference helped us focus on the key strategic initiatives and directions that the project management fraternity should take for greater adoption of project management in their respective domains. The delegates had a lot to take away from the knowledge sharing and networking sessions.

I thank our team of volunteers and PMI India team who worked tirelessly to make it happen.

With best regards,
Rajarama Rao Bannengala
Conference director
Vice president-Programs, PMI Pune-Deccan India Chapter

Dear Professionals,

PMI Pune-Deccan India Chapter took its "On-Target" conference to the next level this year and presented to the community its first ever Regional Conference in Pune.

The conference provided an avenue to the community to fulfill their passion for learning new trends, understanding challenges, and absorbing best practices. Industry speakers from diverse industries addressed delegates on our conference theme, "Project Management for Nation Building".

I'm sure delegates have taken back valuable learnings that they can apply to their project/program management initiatives.

I hope you can glean some of the learning from our special coverage of the conference in this issue.

With best regards,
Girish R. Kadam
Conference chair
President, PMI Pune-Deccan India Chapter

PMI India Project Management Regional Conference

Nation Building through Project Management

Colonel (Retd.) Anil Athale lighting the lamp during the inaugural ceremony with Mr. Rajarama Rao Bannengala, Mr. Girish R. Kadam, Mr. B. G. Jayaram, Mr. Hari Menon, and Mr. Raj Kalady on the dais

BY RAJESH RAO

The vision of prime minister Narendra Modi's government is to leap forward India's economic growth with a long-term model for self-propelling, sustainable growth. Union Budget 2015 is expected to provide a boost to infrastructure development, which is a key enabler for economic progress. PMI India's Project Management Regional Conference, held on the Budget day in Pune, hit the right chord with the theme "Project Management for Nation Building", focusing on innovative and creative adaptations of proven project management techniques to take India to the next level of sustainable economic growth.

The first one-day regional conference, collaboratively organized by PMI Pune-Deccan India Chapter and PMI Mumbai Chapter, was held on 28 February. Industry leaders, project practitioners, trainers, and domain experts from across the country attended the league event to learn, network, share, and grow.

During the inaugural ceremony, Mr. Raj Kalady, managing director, PMI India, released the *Pulse of the Profession*® that gives a sense of the growth areas of the project management profession. It captures the value of project management and how high performing organizations are doing that by focusing on the basics: Culture, Talent and Process. Check the report here.

Keynotes from Colonel (Retd.) Anil Athale, founder, Initiative for Peace and Disarmament; Mr. Hari Menon, CEO, BigBasket.com; and Mr. Pradeep Bhargava,

director, Cummins India, set the tone for discussions through the day.

Awards for the technical paper competition were presented during the conference.

The pulse of the conference was in the informative case study and paper presentations. The organizers had carefully selected eight case studies and papers for presentation that showcased exemplary application of project management in different industries and discussed topics of interest in the community.

The panel discussion provided a forum to recap the main ideas presented during the various sessions through the day.

The conference was also an occasion to felicitate long-standing members of PMI Pune-Deccan India Chapter. These members are Mr. Ashutosh Gulanikar, Mr. Laxmikant Halway, Mr. Sunil Bakshi, Mr. Ashok Pawar, Mr. Vikram Kaul, Mr. Mantrala Visweswara Rao, Mr. Ravi Vanukuru, Mr. Amol Navangul, and Mr. Girish Kelkar.

Delegates got a hands-on experience of Neuro Linguistic Programming (NLP) the next day. Over 200 PMI members attended the half-day session in which Ms. Niloofer Giri, philosopher and proponent of Vedanta philosophy, and Mr. Nitten Mahadik, independent training consultant, gave an exalting talk. Independent training and coaching professional, Mr. Vikas Dixit, took participants through the basics of NLP and Huna practice, and provided them activities to experience the concepts.

LEARNINGS ON NATIONAL SECURITY

Colonel (Retd.) Anil Athale
Founder, Initiative for Peace and Disarmament (INPAD)

In his keynote address, Mr. Anil Athale captured the linkages that exist between national security and project management. He effortlessly connected the myriad topics of national security and defense, nation building, and project management.

With 22 years of service in the Indian Army behind him, Mr. Athale emphasized that national security was the first primary requirement of nation building. "We tend to forget how wars are challenging and revolutionary moments of a nation's history. Wars are like projects that require meticulous planning and working towards the goal. Management is a facet of leadership that helps in better planning and execution, both in wars and in other fields," he remarked.

Admitting that India has had military disasters, he said, "It can be looked as a colossal failure of project management in the fields of defense and security. Sufficient intellectual inputs coming from project management experts will play a role in enhancing our national security."

Using a quote from former prime minister Indira Gandhi, he said, "Nobody can keep elephants as pets. India is too large to be anybody's pet. We have no choice but to stand on our feet and behave like the elephant that we are."

He said project managers can play an important role in better planning, rationalizing the course of action, and implementing policies for the government.

RETAILING GETS CLOSER TO THE CUSTOMER

MR. HARI MENON, CEO, BIGBASKET.COM

Addressing himself as a grocery man, Mr. Hari Menon engaged the audience with his insights and wit that brought out the peculiarities of the grocery business.

India's online retailing industry is estimated to be Rs. 500 billion, of which online grocery takes the largest share and is growing fast. It is the only business he said that allows the delivery of product from farm to homes, without requiring intermediary storing.

Mr. Menon said the online grocery business has stemmed from the need to improve customer convenience. "Our focus is customer retention and we are leveraging big data analytics to get consumer insights," he said.

On the role of project management in retailing, Mr. Menon said that to flag off any new project, one requires a vision, competent planning, and thorough execution. "For a localized, city based online grocery business like BigBasket, same day delivery becomes essential. Planning inventory is a complex issue as many of the goods are perishable. This is where project management comes into play," he said.

He concluded by saying that for a project like BigBasket requires reliable market research, capacity planning, customer loyalty programs, building in vendor's inefficiency and logistics support, which are all cardinal aspects of project planning.

GREEN PRINCIPLES IN CONSTRUCTION

MR. PRADEEP BHARGAVA, DIRECTOR, CUMMINS INDIA

To exemplify the importance of leadership in nation building, Mr. Pradeep Bhargava cited Mr. Narendra Modi's coming to power and his campaign that had clarity of goal and honesty of purpose.

"It was one of the best examples of public relations management and aspiration management, which turned both the strengths and weaknesses as positives," he remarked.

He cited the prime minister's projects such as Bahumukhi Vikas and Swach Bharat as examples of project management. "Budget 2015 shows that Mr. Modi will continue with project management even after winning the elections. The budget talks about inclusive development, and every aspect is linked back to this same goal. It is all about projection, perception, priority, and partnership management," he said.

Talking about his experience of setting up India's first green manufacturing facility, Mr. Bhargava said, "The story behind the Cummins Ranjangaon factory in Pune is all about optimizing natural resources and managing power generation, following Lean and green principles with zero defects."

Mr. Bhargava said that while designing a first-of-its kind green factory building in India, they have explored and used nature – through rainwater harvesting, solar energy, and natural lighting. "We took used bricks made of fly ash for better thermal properties, constructed a natural wind tunnel for fresh, cool air to the entire shop floor, and eliminated the usage of electricity. We used alternate material instead of wood in the factory, thereby conserving the environment," he elaborated.

PANEL DISCUSSION

Session recap of the day with invited panelists, (left to right) Mr. Koushik Srinivasan, Mr. B. G. Jayaram, Ms. Kalindi Kale, Mr. Rakesh Gupta, and Mr. Jacob Zakaria

Long standing members of PMI Pune-Deccan India Chapter for more than eight years

- Mr. Girish Kelkar
- Mr. Ashutosh Gulanikar
- Mr. Laxmikant Halway

- Mr. Sunil Bakshi
- Mr. Ashok Pawar
- Mr. Vikram Kaul

- Mr. Mantrala Visweswara Rao
- Mr. Ravi Vanukuru
- Mr. Amol Navangul

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- Mr. Sarang Deshpande - Lead, Speaker Engagement
- Mr. Ashutosh Nadkarni - Lead, Campaigning
- Ms. Sangeeta Kanse - Lead, Administration
- Mr. Makarand Haridas - NLP Track Lead

Subject matter experts who led a mentoring clinic in which delegates got one-to-one exclusive time with the mentor

L&T Changes India's East Coast Skyline

Mr. Suvadip Das, project control manager, and Mr. Fanil Visharia, deputy general manager, Larsen & Toubro Hydrocarbon Engineering Limited

The first ever process platform in the east coast of India, Gujarat State Petroleum Corporation's (GSPC) process cum living quarter project (PLQP) is a PMI award-winning project from Larsen & Toubro (L&T). "It was one of the largest public projects in India. PLQP was a learning experience for us in doing a project in a high risk environment," said Mr. Suvadip Das.

GSPC had given a stringent schedule of 25 months from engineering to commissioning of the PLQP. L&T proceeded with the target date of mechanical completion by 1 March 2013 and commissioning of the platform by 30 April 2013. The US$ 340 million project was instead installed on 2 February 2013, in 23 months.

The biggest challenge was the compressed schedule of 18 months from the receipt of letter of award to sail out of structures from the fabrication yard. The project also faced challenges like space constraint for process decks, process decks splitting at yard and offshore integration, and installation of equipment on the existing platform.

Mr. Das said such a fast track upstream project in a high risk zone required meticulous planning, close coordination, innovative use of technology, a strong communication system, and regular review and monitoring, all pointing to the exemplary use of project management to overcome the challenges.

Sustainable Development for Large Projects

Ms. Vinitaa Apte, president, Technology, Education, Research and Rehabilitation for the Environment (TERRE)

"Development is not bad at all if it includes sustainability at its heart," said Ms. Vinitaa Apte, as she started her talk. Her organization, TERRE, along with local non-government organizations and communities, undertook a challenge to work towards the sustainable development of the Kaas Natural Heritage site in the Western Ghats. "This initiative has led to incremental progress in conservation and community development efforts in the area," she said.

The Kaas plateau in the Western Ghats of India has won the UNESCO World Natural Heritage recognition. The progress, conservation, and community development efforts at Kaas have led to new means of livelihood for villagers, reverse migration due to increase in employment opportunities, tourism training course for the village youth, and promotion of the local handicraft business.

Ms. Apte is working with private organizations to include the development of Kaas as a part of their corporate social responsibility. She advocates inclusion of grassroots level issues as a must-have in commercial projects, which alone can lead to sustainable development.

Agile Transformation to Deliver Customer Value

Mr. Rahul Sudame and Ms. Deepa Shrivastava, agile program managers, Persistent Systems

Agile in project management provides answers to today's market requirements of producing faster, cheaper, and better products. Successful implementation of scaled Lean and agile project management practices help enterprises acquire capabilities, culture, and business benefits, and deliver value to customers.

Ms. Shrivastava's presentation covered the dos and don'ts, and best practices for agile project management. She stressed on stakeholder buy-in, choosing a pilot, adding team members with the right attitude, applying Scrum principles by the book initially, and how agile and Scrum methodology adoption and implementation can help to optimize work and productivity at all levels.

She said agile transformation comprises the right use of agile models like Scrum, XP, and Kanban.

Mr. Sudame called agile transformation a culture shift and not a quick fix process, which can be undertaken either as a go-all-in or start-small approach. He recommended "agility assessment" to identify areas of improvement. He also cautioned

against cultural, technical, and organizational challenges, which require commitment and an attitude to learn and uncover any impediments on the way.

Challenges in Executing Large Real Estate Projects

Mr. Shreeram Mone, managing director, Advent Projects and Consultancy Services Pvt. Ltd.

Construction projects in India are often plagued by delays and cost escalations. A strong project management approach has helped Advent Projects to manage its large construction projects well.

Mr. Shreeram Mone highlighted the challenges and the project management approach being adopted for the company's Blue Ridge project, a large, real estate project in Pune's IT hub Hinjewadi. The project team is taking care of design coordination, defining execution methodology, procurement and material logistics, value engineering, contract management, cost management, and time management.

The company's project management system is being put to use to prepare a work breakdown structure, resource planning, detailing activities, assigning responsibilities, defining milestones, foreseeing problems, and tracking schedules.

In 2007, when the budget for the entire project was declared, the design had not been ready, specifications not finalized, and the list of unknowns very long. "Today, after seven years, our overall projections of 2007 almost match the incurred cost because of our project management experience and judgment," said Mr. Mone.

The company's quality management process involvesconducting quality checks of drawings, raw materials, skilled manpower, schedules, and estimates. He has also seen the impact of strategic project management decisions on savings on purchases and an easy cash flow.

Applying Psychology in Project Management

Mr. Lakshmivaragan D., lead, Asia Pacific – presales, Tata Consultancy Services

In a country with a knowledge-based economy, the influence of the human factor in projects is increasing rapidly. Mr. Lakshmivaragan elucidated how project managers can leverage the recent advances in the field of psychology for effective project management.

He explained how to achieve any big goal, one must have the right attitude towards work. "If the purpose of the work is articulated and communicated effectively, achieving success becomes effortless," he said.

Mr. Lakshmivaragan said that stakeholder alignment comprises of proper alignment of purpose, goals, and influence. Quoting Viktor E. Frankl, Austrian neurologist and psychologist, a Holocaust survivor, he added, "It is essential to find purpose in life. Once you find it, it will help you in overcoming obstacles of all forms, be it personal or professional."

Aligning the goals or interests of each vertical and horizontal function in an organization is important to avoid conflict of interest. Without alignment, an organization with multiple projects will end up with chaotic results.

On influence, he said, "There are several aspects to being influential. It includes being reciprocal, authoritative, and consistent in delivering good performance." He concluded by stating that gaining and not imposing respect from peers and the team is also important for project managers for successful project execution.

Citizen Centric Good Governance

Prof. Sunil Dhapte, director, Administrative Training Institute, Yashwantrao Chavan Academy of Development Administration, Pune

Government policies and schemes are often designed with a top-down approach with minimal involvement of citizens. The time has come for citizen-centric governance that places partnership between common people and the government at the center of decision-making.

Mr. Sunil Dhapte said nation-building in India must begin with citizen centric governance. "We categorize interests into different buckets such as personal, family, group, organization, social, and at last national. Unless there is a shift in this hierarchy of interests, change is inconceivable," said Mr. Dhapte.

Today, the government plays the role of a facilitator in providing services and facilities. "The government must now become a public partner that works with the public for overall development," he added.

He said enactments of acts like the Right to Information Act (RTI) and the Right to Service Act are bringing in change. "The Maharashtra Government Servants' Regulation of Transfers & Prevention of Delays in Discharge of Official Duties Act 2005 which does not allow a government employee to keep files pending for more than seven day, is helping to speed up processes in government," he said.

Ethics and Values for Business

Prof. Sukanya Patwardhan, practice leader, Tata Management Training Centre

In the modern world, technology is gaining prominence over people and processes. However, people continue to be the face of an organization. That puts ethical and moral behavior of people at the forefront.

"Gone are the days when employees would listen to whatever their bosses say. Today they work like symphonies, doing their bit proficiently and integrating with each other effortlessly to finish a task. In such cases, the project manager must act like the conductor of an orchestra, to synchronize and guide each employee," she commented.

Ms. Patwardhan stated that corruption is rooted deep in the world but believes that change will take place as people become more aware of their moral consciousness. Bracketing ethics with business, she said that ethics helps an organization be truthful and honest to its customers. That is important to maintain the organization's face and integrity in public.

"Keeping in mind the growing need to maintain good ethical practices in project management, companies today have their own codes of conduct for employees. PMI has created a lot of tools and applications. But the real revolution will happen only when people change themselves by constantly questioning their moral and ethical judgments," she said.

Building a Project Management Nation

Mr. Sandeep Kumar, managing director, Product Dossier

Is it possible to build India as a project management nation? If so, how can we do it? Mr. Sandeep Kumar put these posers to the audience as he started the session.

Discussing the scope of nation building with the help of project management, Mr. Kumar said the first step is to have sound financials to sustain the country and its growing industries. Next there needs to be a strong focus on infrastructure and good corruption free governance, followed by internal and external security.

"A major reason for project failure is that people managing a project do not have the right controls and the right visibility at the right time to take the right decisions," he said. The other major reasons are unclear objectives, lack of communication and clarity between engineering and financial departments of the company, and improper resource utilization.

"Project management being the new horizon for development, one must remember that it is not just about issues, schedules, tasks, and resources. It is beyond that. It needs an approach that is beyond engineering – it needs IT integration, technological enablement, and a set of people striving towards the same goal." Mr. Kumar concluded.

NLP and Huna: The Art of Change Management

Over 200 delegates attended a workshop the day after the conference that focused on Neuro Linguistic Programming (NLP) and Hawaiian Huna for change management. Participants were introduced to a number of techniques, emphasizing on its use to solve real-life problems.

Mr. Nitten Mahadik, high performance coach and consultant, spoke about "outcome oriented language" for human excellence. He explained the connection between the neurological processes (neuro), language (linguistic), and behavioral patterns learned through experience (programming), and how it can be changed to achieve positive results.

The NLP technique of "meta model" involves building and adopting models of linguistic patterns. He talked about the "language of necessity," which consist of terms like "have to, must, should, ought, and got to." Terms like these bring a sense of necessity, obligation, and force to language. "Undoing these patterns needs a conscious decision. But as we start breaking these patterns, we create new possibilities in our mind," he explained.

By using negative quantifiers like "I cannot do this, I am never lucky, or it has never happened in my life," language can sometimes defeat us. Instead, he suggested utilizing possibility quantifiers like "can, will, may, would, or could," which reflect an optimistic model and help in creating new neural representations in our mind.

According to **Ms. Niloofer Giri, philosopher and proponent of Vedanta philosophy,** human beings are neuro-linguistically programmed since childhood. Most of the existing programs in our mind take place in the first five years of life and create lasting neuro-linguistic patterns in a person.

"How do you want to use NLP to your advantage? If we are already programmed, do we have much any choice or free will? Yes, the beginning lies in taking a relook at what we are existentially programmed with," remarked Ms. Giri.
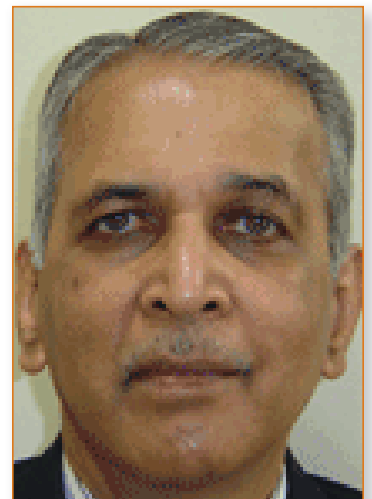
Observe how we speak to others, how we draw conclusions, and react to external stimuli. "Ask yourself if your past programming is useful. If not, will making a little modification help?" she asked the delegates.

Her advice is to be conscious of one's thoughts, actions, and words. "This practice will give insights on how you are currently living. If we proactively and consciously undo what we want to modify and practice to modify, it will work by repetition and with practice," she concluded.

Mr. Vikas Dixit, independent training and coaching professional, introduced participants to NLP and Huna, an ancient Hawaiian methodology of healing. "If you are not using NLP and Huna, you are probably working too hard," he said.

Mr. Dixit revealed practical aspects of how these concepts can helps us live better our lives. How does one get peace by forgiveness, how does one work with *Satvik Guna* (purity attributes), or techniques on emotion balancing were some of the exercises.

The exercise on how to set a goal the NLP and Huna way was an exciting journey in which participants dreamt up their own goals. Mr. Dixit showed them how to first get into a resourceful state and see, hear, feel, smell, and taste the set goal using all five senses and experience it as if it is happening now. "We are living between two dreams. One who looks out is dreaming and one who looks in is awake," he said.

PMI India Regional Conference 2015 Candid Moments

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