Productivity E-Newsletter

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Productivity Day Celebration at Head Quarter





National Productivity Council (NPC) celebrated its Foundation Day as Productivity Day on 12th February, 2018 on the theme "Industry 4.0 Leapfrog Opportunity for India". **Dr Vandana Kumar, Joint Secretary, DIPP & Director General, NPC** presented the welcome address and provoked thought process among the audience to contribute by knowledge sharing.

Dr. Santhi Kanoktanaporn, Secretary General, Asian **Productivity** Organization (APO), Tokyo, Japan who was the Chief Guest, inaugurated the program and apprised that APO is working with 19 Govts to enhance the productivity of different sectors of the economy. According to him, Industry 4.0 is now no more an opportunity but necessity and way forward productive to be Competitive. The Labor Productivity is a major challenge and suggested every Govt to take it at their country level.

A Lecture on functioning aspects of Industry 4.0 in manufacturing development was taken by Shri Dattatri S.R., Vice President, Digital

Robert Bosch Engineering and Business Solutions Private Limited (RBEI).

A special address was presented by Sh. Dilip Chenoy, Director General, FICCI and

Sh. Satvinder Singh, Chief General Manager, TID & Foreign Office, National Small Industries Corporation.

The technical Sessions were presented by the following renowned experts:

- Dr. V.R. Mishra, HoD Mechanical Department, GL Bajaj College of Engineering presented the technical session on SAP initiatives on Industry 4.0 in academia.
 - Sh. Sudhanshu Mittal, Director (Industry 4.0), Nasscom Centre of Excellence for IoT presented technical session on Initiatives of CoE for IoT.
- Dr. H.K. Suhas, Retd. DDG, NIC, DEITY taken the technical session on Industry 4.0 Technologies (IoT etc.)



"Industry 4.0 is now no more an opportunity but necessity and way forward to be productive and Competitive" Abhishek Singh, Sr. Consultant, RBEI, Bosch, India presented technical session on Industry 4.0 concepts and initiatives in Germany and India

The Technical Sessions were followed by Panel Discussion and interaction to deliberate on the challenges confronting implementation of tools and techniques pertaining to Industry 4.0 comprising fear of job losses, data security, technical challenges, threat to privacy, capital investment.

The Program was attended by 110 representatives of SMEs, startups, PSUs and academic institutions attended the programme.

There is an urgent need to address the challenges for successful adoption of advanced technologies and realization of Industry 4.0 potential for a digitally driven future of India. The outcome and learning's from the sessions was in terms of awareness and consciousness on the technology available and the mitigation strategies to face the challenges.

Productivity Messages by Governor and Chief Ministers

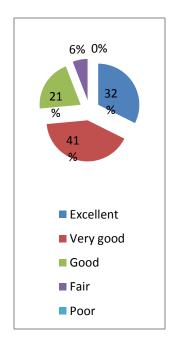
- Productivity Message from Hon'ble Governor of Andhra Pradesh & Telangana.
 Read more
- Message from Hon'ble Chief Minister of Assam Read more
- Message from Hon'ble Chief Minister of Gujarat Read more

Productivity Week Celebrations by NPC Regional Directorates

NPC Regional Directorate, Bangalore observed the Productivity Week by conducting the following workshop in its region:

Date	Title & Workshop Venue	Speakers
12/02/2018	Workshop on "Emerging Trends in Manufacturing Practices" at Hotel Trinity Isle, Bangalore. Total 42 participants attended the program.	Theme Address by Shri. H.R. Prabhu, Director, NPC Seven Waste in Manufacturing Process by Shri. Swarupan Das, Dy. Director, NPC Lean Manufacturing Tools and Techniques by Shri. C. Narendra, Director, NPC Green Productivity by Shri. Praveen Kumar Samantara, Asstt. Director, NPC IoT for Energy Management by Shri. Sanjay Seetharaman, Asstt. Director, NPC Energy Management In Electrical & Thermal Systems by Shri. Gopinathan Gopal, Dy. Director, NP/C
12/02/2018	Aircraft Division Hindustan Aeronautics Ltd., Bangalore	Keynote Address by Shri. H.R. Prabhu,
13/02/2018	Overhaul Division, Hindustan Aeronautics Ltd., Bangalore	Director, NPC
14/02/2018	Bharat Heavy Electricals Ltd. Electronics Division Bangalore	Keynote Address by Shri. C. Narendra, Director, NPC
15/02/2018	Rotary Wing Research And Design Center, Hindustan Aeronautics Ltd, Bangalore Helicopter Division Hindustan Aeronautics Ltd., Bangalore	Keynote Address by Shri. H.R. Prabhu, Director, NPC
	BEML Limited Kolar Gold Fields Karnataka	Keynote Address by Shri. Gopinathan Gopal, Dy. Director, NPC
16/02/2018	MCSRDC, Hindustan Aeronautics Limited, Bangalore	
19/02/2018	ITI Limited, Bangalore	Keynote Address by Shri. H.R. Prabhu, Director, NPC
23/02/2018	LCA Tejas Division Hindustan Aeronautics Ltd, Bangalore	-





Participants Feedback on workshop "Emerging Trends in Manufacturing Practices"

NPC Regional Directorate, Bhubneshwar observed the Productivity Week by conducting the following workshop in its region:



Date	Title & Workshop Venue	Speakers
14/02/2018	Indian Oil Corporation Ltd., Paradeep. Total 35 participants attended the program.	Shri B. Girish, Regional Director Incharge, NPC Bhubaneswar.
15/02/2018	Workshop on "Industry 4.0-Leapfrog Opportunity for India" at Indian Farmers Fertiliser Cooperative Limited (IFFCO) Paradip, Odisha. Total 32 participants attended the program.	 Shri A.K Panda, Sr. General Manager, IFFCO Shri Avijit Nayak, Dy. Director, NPC
	Odisha Mining Corporation (OMC), Bhubaneswar. Total 35 participants attended the program.	 Director (Personnel) and Director (Project & Planning) OMC Shri Kishor Bhusal, Asst. Director, NPC
16/02/2018	Workshop on "Industry 4.0-Leapfrog Opportunity for India" at Central Mine Planning & Design Institute (CMPDI) Bhubaneswar, Odisha. Total 50 participants attended the program.	 Shri S. K. Shrivastava, Regional Director, CMPDI, Bhubaneswar) Shri Kishor H. Bhusal, Asst. Director, NPC
17/02/2018	Workshop on "Industry 4.0-Leapfrog Opportunity for India" at Hotel Hindustan International, Bhubaneswar	 Dr. Gopal Krishan Nayak, Director International Institute of Information Technology Shri. B.Girish, Regional Director Incharge, NPC Shri. S. Jagdev, President, Orissa State Productivity Council (OSPC) Shri B.B Behera Secretary OSPC



Eighth Regional 3R Forum in Asia and the Pacific

Mission ZERO Waste

Achieving Dean Water, Clean Land and Clean Air through 3R and Resource Efficiency - A 21st Century Vision for Asia-Pacific Communities

9-12 April, 2018 Brilliant Convention Centre, Indore, Madhya Pradesh

Co-organizers





Regional Development



Government of Japan

Ministry of Housing and Urban Affairs, Govt. of India

Programme Coverage:

- Swachh Bharat Mission Strategies; Resource efficiency; 3R technologies and its achievement by different countries;
- Waste management Technologies: Plastic waste management in Coastal and Marine environment
- · PPP for advanced 3R implementation
- Sustainable waste management
- Opportunities for greening SMEs
- Low Carbon development
- 3R infrastructure financing
- Investment opportunities in waste management sector



Participating Countries

Afghanistan, Australia Bangladesh, Bhutan, Cambodia, India, Indonesia, Japan, Kazakhstan Kiribati Kyrgyz Republic, Lao PDR Malaysia, Maldives, Marshall Islands. Mongolia Myanmar, Napal, Nius, Pakistan, Palau, People's Republic of China, Datar, Republic of Korea, Russian Federation, Samoa, Singapore, Solomon Islands Sri Lanka, Thailand, Philippiness Tonga, Tuvalu, Vanuetu, VietNam





Major Highlights:

- Indore 3R Declaration
- 3R award
- Asian Mayor's Dialogue
- International 3R Exhibition
- Plenary Technical Sessions on 3R best practices

Sponsorship for Networking Dinner, Cultural Programmes, Branding, and Conference Materials kits etc. are welcome

National Programme Coordinator:









For registration/enquires email us at: india3rforum@gmail.com or log on http://www.india3rforum.in/

NPC Regional Directorate, Delhi organized one day program on 16th February, 2018 on the chosen theme at its Delhi Office. Representatives of SMEs, startups, PSUs and academic institutions who attended the programme were sensitized by following sessions during the programme:

S.No.	Sessions
1	Block chain driven Industry 4.0 by Dr. Rajbeer Singh, Asst. Professor, Centre for Studies in Science Policy, Jawahar Lal Nehru University
2	Artificial Intelligence & Machine Learning by Shri Ganesh Iyer, Head, Technology & Business Architecture, Future Group
3	Implementation aspects of Industry 4.0- A case study of Mahindra & Mahindra (M&M) on digitisation by Shri D.C.Trivedi, Dy. General Manager, M&M.
4	Demonstration of Cloud Based Production Management System by Shri Manish Jain, Co-founder, Felidae systems.
5	Readiness of Indian Industry towards adoption of Industry 4.0 by Shri Sanjeev Narula, Research Scholar on Industry 4.0, BML Munjal University & Asst. general Manager, Hero Motocorp
6	Big Data Analytics by Shri Kapil Malhotra, Head, Analytics, Pepsico

It emerged from the deliberations that the adoption of Industry 4.0 will have a significant impact on the manufacturing workforce:

- Industry 4.0 would present an opportunity for manufacturers to implement the systems that can make more versatile production decisions and invariably increase company's profitability.
- Implementation of Industry 4.0 will require initial investments. However, once the intelligence is built into products and processes, the cost of production will plummet.
- Industry 4.0 will make energy consumption much more efficient due to organizations being able to optimize their machine usage, production and logistics processes.
- Standardized sensors are an area of concern in the context of Industry 4.0. Especially suppliers who would like to participate in this area ask about interfaces they should realize and offer in order to enable machine integration in Industry 4.0 scenarios.





"Implementation of Industry 4.0 will require initial investments. However, once the intelligence is built into products and processes, the cost of production will plummet" **NPC Regional Directorate, Gandhinagar** observed the Productivity Week by conducting the activities in its region as follows:



	NPC Regional Directorate	Gandhinagar
Date	Titles & Workshop Venue	Speakers
06/02/2018	Hotel Lord's Plaza, Surat. Program was oriented towards application of Industry 4.0 and it was attended by about 80 participants.	Mr Hetal Mehta, Vice President, SGCCI and Mr Shirish Paliwal, Regional Director, NPC
09/02/2018	Pandit Deendayal Petroleum University, Gandhinagar, It was attended by about 40 participants under Productivity Practitioners course of NPC	Mr Shirish Paliwal, Regional Director
12/02/2018	Kutch Saurashtra Productivity Council, Rajkot. It was attended by about 60 participants.	Session on "Productivity a way life" by Swami Nikhileshwaranad, President, Ramkrishna Mission; Theme Address by Shri. Shirish Paliwal, Regional Director. Special Address by Shri Hasubhai Dave, Vice Chairman, Mahatma Gandhi Labour Institute
	NPC Office, Gandhinagar. All employees attended	Mr Shirish Paliwal, Regional Director
15/02/2018	Productivity Theme Session and Competition at National Institute of Fashion Technology, Gandhinagar. It was attended by about 40 students of institute	Mr Amitosh Gautam, Deputy Director & Mr Chandan Choudhary Assistant Director
	Productivity Theme Session and Competition at Institute of Advanced Research, Gandhinagar	Mr Natarajan Pratap, Deputy Director
	Interactive Productivity Theme at South Gujarat Chamber of Commerce & Industry, Surat Session. About 100 participants attended.	Shri M P Shah, President, SGCCI; Shri Shirish Paliwal, Regional Director Mr Pankaj Patel, Chairman SGCCI Shri A S Aravind Kumar, ex-L&T Tool Room, IIT, Powai; Shri Bhavin Billimoria, Sales Manager, Advance Solution Division Ingrammicro India
16/02/2018	Productivity Theme Session and Competition at GH Patel College of Engineering & Technology. About 50 students attended the session.	Mr Natarajan Pratap, Deputy Director
22/02/2018	Horizon 2018- Marching Towards Vision 2020 at Prakash School Auditorium, Ahmedabad by Somlalit Education and Research Foundation. About 200 participants attended the event.	Mr Shirish Paliwal, Regional Director, NPC



NPC Regional Directorate, Hyderabad observed the Productivity Week by conducting the following lectures and talks in its region:



Date	Title & Workshop Venue	Speakers
14/02/2018	Productivity talks were organized at Bharat Dynamics Ltd.	NPC Hyderabad officials
15/02/2018	A talk in All India Radio (AIR), was arranged on the theme for the active start-up entrepreneurs	 Dr. B. Hemant Kumar Rao, Regional Director, NPC, Hyderabad Shri Durgaji Bonam, Dy. Director, NPC Hyderabad
16/02/2018	A panel discussion by Doordarshan, on the theme and telecasted by Doordarshan, Yadgiri Channel on 17.02.2018 and repeat telecast on 18.02.2018	 Smt.K. Ramadevi, Founder and President, ALEAP, Hyderabad Dr. B. Hemant Kumar Rao, Regional Director, NPC, Hyderabad
17/02/2018	Productivity day Celebrations at Auditorium of Association of Lady Entrepreneurs of Andhra Pradesh, (ALEAP), Pragatinagar, Kukatpally, Hyderabad,	 Dr. B. Hemant Kumar Rao, Regional Director, NPC, Hyderabad Smt. K. Ramadevi, Founder and President, ALEAP, Hyderabad



Productivity Week Celebration

NPC Regional Directorate, Jaipur observed the Productivity Week by conducting the following lectures and talks in its region:





Date	Title & Workshop Venue	Speakers
12/02/2018	Productivity talks were organized jointly by NPC, Jaipur, Rajasthan State Productivity Council, & Rajasthan Chamber of Commerce & Industries, at Bhairon Singh Shekhawat Smriti Sabha Bhawan, Chamber Bhawan, Jaipur	Commissioner, Industries Department, Government of Rajasthan
15/02/2018	A programme on theme were organized at M/s Hariom Precision Alloy, Alwar, Rajasthan	• .
16/02/2018	Presentation on Productivity Week theme ware organized jointly by NPC, Jaipur and Indian Institute of Integrated Learning, Jaipur	Ms.Aditi Mishra, Dy. Director, NPC

NPC Regional Directorate, Kanpur observed the Productivity Week by conducting the following lectures and talks in its region:



Date	Title & Workshop Venue	Speakers
12/02/2018	A press conference was organised by National Productivity Council, RD, Kanpur at Merchants' Chamber of Uttar Pradesh, Kanpur on the Productivity Week's theme.	 Shri R. Dubey, Regional Director, NPC, Kanpur Mr A.K. Sinha, Secretary, Merchants' Chamber of U.P. Shri L.B.S. Yadav, Dy. Director, MSME-DI, Kanpur Shri S.K. Agnihotri, Asst. Director, MSME-DI, Kanpur
13/02/2018	A lecture on Productivity Theme was organised at MSME-DI, Kanpur	Shri R. Dubey, Regional Director, NPC
17/02/2018	A grand productivity week concluding function was organised by NPC, RD, Kanpur along-with Kanpur Productivity Council (KPC) at KPC auditorium	 Shri G.C. Rout, IOFS, General Manager, Ordnance Parachute Factory, Kanpur Shri R. Dubey, Regional Director, NPC Shri Anupam Chandra, Joint General Manager, Ordnance Factory, Kanpur Shri U.C. Shukla, Director, MSME-DI Kanpur



Productivity Week Celebration

NPC Regional Directorate, Kolkata observed the Productivity Week by conducting the following lectures and talks in its region:



Date	Title & Workshop Venue		Speakers
13/02/2018	The Senator Hotel, Kolkata	1.	Shri S.Mallik, Regional Director, National Productivity Council
		2.	Shri Ajoy Kumar Ray, Director, IIEST, Shibpur
		3.	Shri Ventakesh S.Bhardwaj, GM, SBI Global Market Units, Kolkata
		4.	Dr. Gautam Sengupta, President, Videocon Group, Kolkata
		5.	Ms Kasturi Bhattacharya, Senior Director-IOT, Ericsson Global Services, Kolkata
		6.	Sh. S.Chakraborty, Dy.Director, NPC
		7.	Sh. S. Maity, Dy.Director, NPC
14/02/2018	Garden Reach Shipbuilders & Engineers Ltd (GRSE)	8.	Rear Admiral V K Saxena, IN (Retd.), Chairman & Managing Director
	(3.132)	9.	Shri Sarvjit Singh Dogra, Director (Finance)
		10.	Shri AK Nanda, Director (Personnel)
		11.	Shri Karm Singh Verma, General Manager (Industrial Engineering & Process)
		12.	Shri P.B.Manish Chandra Vinay, Dy.Director, NPC
16/02/2018	Hindustan Aeronautics Ltd. (HAL), Barrackpore Division	S NPC	hri S.Chakraborty, Deputy Director,





NPC Regional Directorate, Patna observed the Productivity Week by conducting the following lectures and talks in its region:

Lecture / talk on productivity theme were delivered by NPC's consultants in the following organization:

Patna Dairy Project on 12th February 2018

Title & Workshop Venue

- BIT Mesra, Patna Campus on 13th February 2018
- IOC Barauni Refinery on 14th February 2018
- National Institute of Technology Patna on 14th February 2018
- Bihar Industries Association Patna on 15th February 2018.

Industries department, Govt. of Bihar, Bihar State Productivity Council (BSPC), Bihar Industries Association (BIA), Bihar Chamber of Commerce and Industries (BCCI), Udyog Mitra, MSME-DI Patna, and other institutions were also involved in the activities organized by NPC.

Date

"The workshop by

NPC Patna was

attended by 70

16/02/2018	Workshop on "Industry 4.0,
	Leapfrog Opportunity for India"
	at Hotel Patliputra Ashok,
	Patna. The program was
	attended by 70 participants
	including General Managers
	of all District Industries
	Centres, MSME-DI Patna,
	Udyog Mitra etc.

Speakers

- Shri P K Singh, Director of Industries, Govt. of Bihar
- 2. Shri S K Singh, MD Patna Dairy Project
- 3. Shri R K Singh, SIO, National Informatics Centre, Bihar
- 4. Dr J. Mathew, Professor from IIT Patna (Bihta)
- 5. Shri S K Srivastava, National Informatics Centre Patna
- 6. Shri S K Singh, Former Vice President Bihar Industries Association, Patna
- 7. Shri PR Upadhyay, Regional Director, NPC
- 8. Shri A K Singh Dy. Director, NPC

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Productivity Week Celebrations by Local Productivity Councils (LPC)

Assam Productivity Council (APC) observed the Productivity Week by conducting the following lectures and talks in its region:

Date	Title & Workshop Venue	Speakers
13/02/2018	Training Programme on 'Productivity- What, Why & How and Digital Revolution for enhanced Productivity' at Sealkottee Tea Estate (Tata Tea), Chabua, Dibrugarh (Total 37 participants)	Sh. S. Karmakar, Labour Welfare Officer of Tea Estate; Sh. B.P. Bakshi, Chairman APC; Sh. Raju Sahu, Ex-MLA & Parliamentary Secretary, Govt of Assam
	Expert Talk at R.G. Barua Road, Guwahati. (Total 37 participants)	Sh Shiladitya Sarkar, Regional Manager, NSDC; Sh D.N. Barua, Ex- Managing Director, Assam Industrial development Corpn; Dr. T.K. Bharali, Jt. Secretary, APC
14/02/2018	One day training programme at Dinjan Tea Estate, Panitola, Dibrugarh. (Total 27 participants)	Sh. Biraj Hiloidhari, Labour Welfare Officer; Sh. Raju Sahu, Ex-MLA& Parliamentary Secretary, of Assam Govt
15/02/2018	One day programme on the theme at Maud Tea Estate (Lohia Group), Tinsukia. (Total 27 participants)	Sh. Sudhir Lohia, Proprietor of Tea Co.; Sh. Raju Sahu, Ex-MLA& Parliamentary Secretary, of Assam Govt
15/02/2018	A public speaking session at Women's College, Tinsukia on "Tinsukia Smart City – Vision 2035". (Total 15 participants)	Sh. B.P. Bakshi, Chairman APC
		the topic "Use of Artificial Intelligence in Industry; ersity, where 16 PG students from Management, mics faculties took part
16/02/2018	One day Training programme on Importance & Need of Reducing Waste in Industry at Panitola Tea estate	Sh. M.R. Patowari, Tea Industry Trainer; Ms. Jharna Patowari, Tea Industry Trainer; Sh. B.P. Bakshi, Chairman APC
17 & 18/02/2018	One day training Programmes at Nokhroy Tea Estate, Tinsukia & Nalini Tea Estate, Panitola (M.K. Shah & Co.), Dibrugarh (Total 61 Participants)	Sh. T. Nayak, Labour welfare officer, President Assam Chah Mazdoor Sangha, Panitola Branch; Sh. S. Bhattacharjee, Tea Labour Consultant; Sh. B.P. Bakshi, Chairman APC; Sh. Raju Sahu, Ex MLA & Parliamentary Secretary, of Assam Govt





Haryana State Productivity Council organized the "Productivity Week 2018" with Press Conference on 8th February, First Aid Training Seminar, Theme Seminar and Special Session on Productivity Enhancement, Special Issue of Newsletter "Haryana Productivity News", launch of Safety and Productivity Posters, Slogan Competition & Productivity Message for full month on social media to 200 stakeholders. The program was attended by Sh. Navdeep Chawla, CMD, Psychotropics India Ltd. as Chief Guest along with Sh. M.P. Rungta, CMD, Glass Fibre Glass Ltd, Sh. Rishi Dwivedi, General Manager, SIDBI, Faridabad, Prof.(Dr.) Neelam Gulati, Principal, DAV Institute of Management, and others.



Kerala State Productivity Council conducted the following activities during the week:



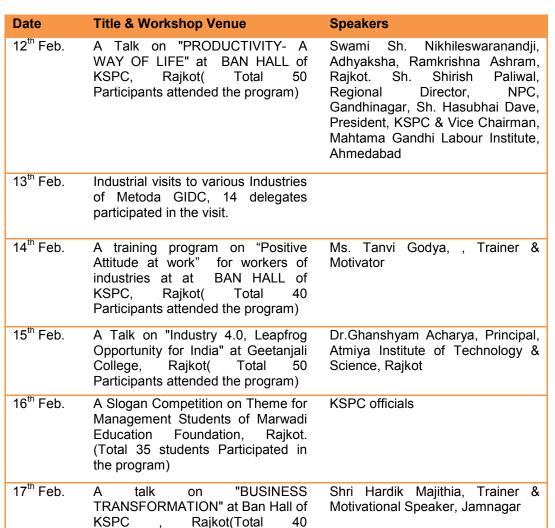
Date	Title & Workshop Venue	Speakers
12/02/2018	On Productivity Week Theme	Sh. S. Shajahan, RDO, Muvattupuzha, Prof. Dr. Achuthsankar S. Nair, HoD, Bio Info, University of Kerala
16/02/2018	Digital & Internet Marketing	
20/02/2018	Program on Productivity, Work culture & Safety	
23/02/2018	Team work, Interpersonal Relations & Productivity	



Productivity Week Celebration

Kutch Saurashtra Productivity Council (KSPC), Rajkot conducted the following workshops during the week:





Participants)



Rajasthan Sate Productivity Council (RSPC), Jaipur conducted Productivity Theme as follows:



Data	Title 9 Workshop Vanus	Speakers
Date 12 th	Title & Workshop Venue	Speakers Mr. L C Jain Addl. Commissioner
Feb.	At Chamber Bhawan, Jaipur (Total 50 participants attended the Program)	Industries, Jaipur Mr. K R Sharma, former Director, MSME, Mumbai and Mr. Shailendra Singh, Dy. Manager, Technical Engineering functions, BOSCH, Jaipur
14 th Feb.	At Seminar Hall, Mechanical Dept., MNIT, with MNIT, Mech. Engg. Dept. and IIE, Jaipur Chapter (Total 40 participants attended the Program)	Dr. Rakesh Jain, former HOD, Mech. Engg. Dept., MNIT, Jaipur ,
	At Chamber Bhawan, with Rajasthan Chamber of Commerce & Industries (RCCI), Jaipur, SSAI, Rajasthan Chapter, Jaipur & BHU Alumni Association, Jaipur (Total 40 participants attended the Program)	Dr. Anupam K Singh, Director, Institute of Engineering and Technology, JK Laxmipat University, Jaipur, Mr. N K Jain, President, Employer's Association of Rajasthan, Jaipur,
15 th Feb.	At IET Amphitheatre, with, JK Laxmipat University & Quality Circle Forum of India, Jaipur Chapter (Total 80 participants attended the Program)	Mr. Vijay Gupta Senior Manager I.T., JCB (India) Ltd., Jaipur, Mr. Aniruddha Kadkol,Dy. G. M. & Head, Manufacturing IT Systems, Mahindra & Mahindra, Dr. R L Raina, VC, JKLU, Mr. Ashok Kumar Singh, Chairman, QCFI Jaipur Sub-Chapter, Dr. Anupam Kumar Singh Dir. IET, JKLU
16 th Feb.	At NIPM, Jaipur Chapter at Manipal University (Commerce Department), Jaipur (Total 60 participants attended the Program)	Mr. Mukesh Vyas, Director, WAE Consultancy Services, Jaipur, Dr. M L Vadera, Director, School of Business and Commerce,Manipal University, Jaipur
	At ISTD, Jaipur & Manipal University (Hotel Management Dept.), Jaipur. (Total 50 participants attended the Program)	Mr. Mukesh Vyas, Director, WAE Consultancy Services, Jaipur, Mr. T P Singh Uberoi, VP & General Manager, Clarks group of Hotels, Jaipur., Dr. Amit Jain, Chairman ISTD, Jaipur & Director, Hotel Management Dept.
17 th Feb.	At J C Bose Seminar Hall, Swami Keshvanand Institute of Technology (SKIT) with IIM Ahmedabad Alumni Association, Jaipur Chapter &,SKIT Management & Gramothan, Jaipur (Total 40 participants attended the Program)	Dr. Vinay Mohan, Founder FIDCO, Jaipur, former Director Finance & CMD, Instrumentation Ltd. Kota, Mr. V K Sharma, Hon. Secy., RSPC, Prof. (Dr.) Vikas Shrotriya, Head DMS, SKIT, Mr. Jaipal Meel, Director, SKIT, Prof. (Dr.) S K Calla, Director (D & W), SKIT Prof. (Dr.) R K Pachar, Principal, SKIT, Dr. Attu Gupta
	A talk was organized with IIPA, Jaipur & MDA, Jaipur at Prakrit Bharati Academy, Jaipur (Total 80 participants attended the Program)	Prof. C S Barla, former HOD, Economics, Rajasthan University, Dr. S K Batra, Addl. Director, Bharatiya Vidya Bhawan, Jaipur, Prof. Ramesh Arora, Director MDA, Jaipur, Shri Rajendra Bhanawat IAS (Retd.)



Productivity Week Celebration

Feasibility study on adopting Tri-generation Technology

The EM Group at NPC Delhi is conducting feasibility studies for adopting "Tri-generation Technology" in both Industrial & service Sectors in India. This study is being conducted for Energy Efficiency Services Limited (EESL), Noida (NCR) which has taken up the task of promoting the technology in a big way, in the country. Tri-generation is a Technology that promotes efficient use of energy by simultaneously supplying three different forms of energy namely Electricity, Heating & Cooling from a single energy use. The feasibility studies being conducted are to establish the viability of using natural gas as fuel in a Gas Engine Generator (GEG) while also exploiting the potential of providing heating and cooling requirements (for process/services) from the available waste heat.

In a GEG, Electricity is produced by using Natural Gas (NG/PNG) as fuel. The efficiency of power generation in a Gas Engine is about 36% to 40%. The remaining energy is lost to the atmosphere as waste heat. About 30-35% of the input energy is lost through the exhaust gases which leave the engine at around 500 $^{\circ}$ C while another 20-25% of the energy is lost through jacket cooling of the Engine.

The Tri-generation technology aims at utilising the heat energy available in both the exhaust gases and the jacket cooling water by converting them into useable forms of energy. Chilled water for cooling applications can be produced by using Vapour Absorption Chillers while Steam/Hot Water for heating applications can be produced by using suitable heat exchangers. Utilising the waste heat to provide both cooling & heating requirements apart from producing electricity, would ensure that the entire system operates at an efficiency of around 85%.

While the technology holds a lot of promise, there are a few factors which could derail the adoption of this technology in the near future. The most critical among them being, 'availability' of natural gas and its 'pricing'. Policy level interventions would therefore be required to promote this technology in a big way in the country. Read more.

Productivity & Competitiveness Measurement for Organizational Excellence - February 20-24, 2018, Munnar, Kerala

The Residential Training Program was conceptualized with the following objectives:

- To inculcate Concepts of Productivity and Competitiveness for continuous improvements at the workplace;
- ➤ To train participants to understand and estimate Productivity and Competitiveness indicators at macro as well as micro level;
- To teach methods of measuring Productivity at organizational level;
- To provide insights on the role of Productivity growth on the overall Competitiveness of the firm, sector and economy at large;
- To provide a platform for sharing experiences on issues related to Productivity and Competitiveness at organizational and at macro economy/sector level

The Residential Training Program was specially designed to provide an understanding of Productivity & Competitiveness Measurement and also for imparting the skill and knowledge on theory and measurement of Productivity and Competitiveness at Organizational, Sectoral and National levels for achieving organizational excellence.

The training program was coordinated by Shri Rajesh Sund, Deputy Director (Economic Services), NPC,HQ, who the faculty on Competitiveness to the training program. Services of an Expert faculty was also taken for the sessions in the area of Productivity measurement.

Tri-generation is a Technology that promotes efficient use of energy by simultaneously supplying three different forms of energy namely Electricity, Heating & Cooling from a single energy use.

The participants for the training program were from PSUs, Academic institutions, and various Central and state Government Departments and other entities. The program was well received by the participants and appreciated for the quality of course material, technical sessions as well as the venue and overall ambience and arrangement provided to all the participants. All the participants rated the program either good or very good.



Upcoming Training Programs Read more..

- 1. Conflict Management and Negotiation Skills from 07-11 May, 2018 at Mount Abu
- 2. Team Building and Leadership Skills from 21-25 May, 2018 at Ooty
- 3. Enhancing Performance Excellence: Focus On Operational Performance, Human Performance & Advance Office Productivity Tools from 23- 27 April, 2018 at Kathmandu.
- 4. Conflict Management and Negotiation Skills from 07-11 May, 2018 at Mount Abu.
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