



# Admission Brochure

Program 8 : 2014-15



IIT Kanpur



IIT Madras

## Post Graduate Programme for Executives For Visionary Leadership in Manufacturing (PGPEX-VLM)

A joint unique one year full-time residential program of IIM Calcutta, IIT Kanpur & IIT Madras with active cooperation of Japan International Cooperation Agency(JICA), introduced from 2007-08 academic year, as an initiative of National Manufacturing Competitiveness Council, Govt of India, for career development/ advancement of Engineers/executives with work experience, to enhance the competitiveness of Indian Manufacturing sector  
**IIT Kanpur is the Host Institute for 2014-15 Session (8<sup>th</sup> batch).**

IIT Kanpur Campus →



### Background

Despite its rapid overall economic growth and the development of the service sector, exemplified by the Information and Communications Technology (ICT) sector, inclusive growth remains as a big challenge for India. Recognizing the crucial roles that the manufacturing sector can play in creating employment, Indian government established National Manufacturing Competitiveness Council, (hereinafter referred to as "NMCC") in 2004 in order for this sector to deepen its development and contribute more dynamically to the global market. In the Eleventh Five Year Plan 2007-2012 of India, the manufacturing sector was targeted to grow over 12% per annum and expected to provide high quality employment. In 2011, the Government of India announced a National Manufacturing Policy with the target of manufacturing share in GDP enhancing to at least 25% and creating 100 million jobs in manufacturing by 2022



← Prof. Shiba has been conferred with Padma Shri by Her Excellency the President of India Mrs. Pratibha Devisingh Patil on March 22, 2012 for his contribution towards transformation of India's Manufacturing Sector to become globally competitive.

Based on the above background, the Project for Visionary Leaders for Manufacturing (hereinafter referred to as “VLFM”) Program was started in 2007 and has been implemented as a national project between the Governments of India and Japan to develop leaders in manufacturing. Since the Project has produced many visible outcomes, it has been acknowledged both by Indian and Japanese sides. Considering the VLFM Project is scheduled to terminate in March 2013, the Government of India requested a new project which further develops the VLFM program.

Accordingly, record of Discussions on “Project On Champions of Societal Manufacturing” in the Republic of India agreed upon between the Authorities concerned in the Government of India and Japan International Cooperative Agency was signed on 15<sup>th</sup> March 2013. The project duration is from April 2013 to March 2016.

Item no. 14 of the joint statement by the Prime Minister of Japan and India released on May 29, 2013 reads as follows :

*The two Prime Ministers highly appreciated the achievements of the Visionary Leaders for Manufacturing (VLFM) program as a valuable Japanese contribution to the development of the manufacturing sector in India and welcomed the development of this program as the new project ‘Champions of Societal Manufacturing’(CSM).*

Photograph of Prime Minister Abe shaking hands with Prime Minister Singh of India at Japan-India Summit Meeting, Signing Ceremony on Wednesday, May 29, 2013# 



### **Purpose of Program**

Purpose of VLFM is to create Visionary Leaders skilled to transform Indian manufacturing by conveying the management concept of the Japanese manufacturing to the senior and middle managers. For this purpose, VLFM Program highlights the “BIG M” (manufacturing) concept which covers the entire manufacturing eco system from concept creation of new product to after sales service.

### **Partnership**

VLFM is a Breakthrough Program and is the first of its kind cooperation of the Indian Industry, Academia and the governments of India and Japan. The program Partners include the following:

- Japanese Government: Japan International Cooperation Agency (JICA)
- Indian Government: National Manufacturing Competitiveness Council (NMCC)
- Indian Government: Ministry of Human Resource Development (MHRD)
- Confederation of Indian Industry (CII)
- Indian Institute of Technology Kanpur (IITK)
- Indian Institute of Technology Madras (IITM)
- Indian Institute of Management Calcutta (IIMC)

The PGPEX-VLM program commenced from the academic session 2007-08. 178 students have passed out in last six batches upto Academic Session 2012-2013. All students have been well placed in leading manufacturing companies in India. The current batch for the academic session 2013-14 has strength of 37 students including three female students.

## Major Attributes of VLM Program

- ✓ Joint Program of Indian Institute of Management Calcutta (IIMC), Indian Institute of Technology Kanpur (IITK) and Indian Institute of Technology Madras (IITM).
- ✓ Supported by Japanese International Cooperation Agency (JICA).
- ✓ One year full time residential program.
- ✓ 36 weeks classroom interaction, case studies, tutorials, lab sessions, project work at IIMC, IITM and IITK; total 1032 interaction hours.
- ✓ 6 (six) weeks internship in industry.
- ✓ 3 (Three) weeks industry visits in India and abroad.
- ✓ The program is meant for promising engineers drawn from the manufacturing sector, who have the potential for top management positions.
- ✓ The program will involve development of leadership and management skills together with cutting edge technology awareness and proficiency.
- ✓ The program will have a proper balance of theoretical inputs and practical training to develop a high degree of leadership skill which would enable Indian companies convert manufacturing into a competitive weapon.



← Inauguration Ceremony in presence of Director, IIMC, Program Chairman, faculties of IIMC, IITK & IITM, Chief Guest His Excellency Mitsuo Kawaguchi, Consul General of Japan, Mr. Shinya Ejima, of JICA, New Delhi

### Certification

On successful completion of the Program, “Post Graduate Diploma in Management for Executives in Manufacturing” is awarded jointly by IIM Calcutta, IIT Kanpur and IIT Madras.

### Batch Size

The batch size for 2014-2015 session will be 35 to 40.

### Program Fees

Rs. 9,00,000 (Rupees Nine lakhs) to be paid in Installments spread over one year duration of the program.

### Cost and charges for Boarding, Lodging, Travel in India and Japan Visit :

Rs.3.00,000 (Rupees Three lakhs) approximately. (No Installment)

### Eligibility

#### Education

A First-Class Graduate Engineers with First Division/ First Class Marks from SLC/ Madhyamik

#### Work Experience

Self sponsored candidates, not in service. - **Minimum 4½ (four and half)** to maximum 10 (ten) years of work experience in manufacturing, engineering and related sector; holding responsibilities in production planning and control, research, design and development, quality control, plant engineering, maintenance, supply chain, construction etc.

Sponsored candidates and candidates on study leave need to have minimum **4½ (four and half)** years work experience only. In these cases, there is no upper limit of experience.

The date of computation of the number of years of work experience shall be upto 28<sup>th</sup> February 2014 for the academic year 2014-15

## Course Structure

(Jointly conducted by IIMC, IIT Kanpur & IIT Madras)

Module	Courses	Objectives	Institution
	Break Through Management & Five Step Discovery Process	Two weeks session to be taken by Prof. Shoji Shiba *, Chief Advisor, JICA, Individual Deming Prize Winner and a recipient of Padmashri by Government of India subject to renewal of JICA Agreement. *Subject to fresh agreement with JICA from April 3013 onwards	IIMC
	Managerial Communication	The purpose of the course is to make professionals effective communicators in all forms of communication, written, oral and non-verbal aspects of communication. The course builds up diverse business scenarios offering communication solutions to the problems generally faced in business careers due to communication dislocations.	IIMC
Environment of Manufacturing	Global Scenario	To provide an overview of the complexity of the global manufacturing scenario, emphasize the management problems that companies face in globalizing facilities and operations.	IIMC
	Regulatory-National & International	To appreciate the regulatory framework of manufacturing business- both national and international especially in the context of multinational operations, WTO and other Trade Agreements	IIMC
	Strategic Analysis	Sensitizing about impending changes facing Indian manufacturing companies owing to changing world order, strategies to overcome challenges and make Indian manufacturing more globally competitive, analytical approaches to assess competitiveness capabilities and design/develop strategies, develop holistic view of organization	IIMC
	Vision to Execution	1. To understand and analyze the complex relationship between the vision, mission, strategy, policies, organizational structure, systems and processes; 2. To understand the basic organizational structures; functional, divisional and matrix and process of organizational evolution; 3. To gain insights into the process of translating vision into action in different kinds of organizations with special reference to technology based organizations; 4. To understand the characteristics of innovative organizations and how to strategically manage them.	
	Green Manufacturing	The course should cover all dimensions of green manufacturing and technologies starting from design through green manufacturing practices, green supply chain management and green marketing etc.	IIMC, IITK & IITM



Functional Knowledge	Managerial Economics	Develop understanding of a market economy, and the causes and consequences of demand-supply movements. Develop economic decision-making skills, with particular reference to efficiency in production decisions and in profit maximization. Understanding different market structures in different industries (monopoly, oligopoly, monopolistic competition), the exercise of market power by firms and also The course will also include understanding of Macro Economics in Business environment.	IIMC
	Financial Analysis	To acquaint with basic concepts in accounting (financial & cost) and corporate financial management.	IIMC
	Organizational Structure & Design	To apprise different forms of organizations, highlight impact of structure and design on overall organizational effectiveness	IIMC
	HR & Labor Laws	To sensitize on importance of people issue in company competitive advantage, awareness of labor regulation in manufacturing industry	IIMC
	Marketing	To focus on emerging marketing environment in India. It will also focus on market orientation and the process and tools for building marketing strategies that deliver superior levels of customer satisfaction, value and profitability by emphasizing importance of customer-orientation for the firm and the role manufacturing can play in enhancing competitiveness of the firm by delighting the customers.	IIMC
Manufacturing Systems & Technology	Manufacturing Strategy	In order to achieve timely delivery of cost-effective, high-quality products in a competitive environment, manufacturing firms have realized the importance of manufacturing strategy as a key source of sustainable competitive advantage. This course aims to develop a strategic perspective for manufacturing through concepts, cases, best practices and games.	IIMC

Production Management 1	To acquaint the participants with the important concepts and tools used in input, output and transformation management process. In addition to classical production management concepts like Capacity Planning and Production Planning and Control, the course will also include the contemporary concepts, namely, Just-in-Time, Lean Manufacturing, Toyota Production System and Total Productive Maintenance.	IIMC
Production Management 2	Total Quality Management, six-sigma	IIT
Supply Chain Management	Understand key drivers of supply chain performance measures, Logistics strategies in managing global supply chains, Creating value through supply chain integration, IT and supply chain.	IIT
Project Management	To acquaint the participants with the concepts, tools and techniques required for planning, execution, monitoring and control of projects within specified time, budget and quality. Aspects of project coordination and procedural issues will also be covered.	IIMC



Technology Management	To apprise participants to the importance of technology and innovation in the context of manufacturing, To create awareness in importance of IP issues in manufacturing environment, Contract management for technology transfer	IIT
ERP, Workflow and Business Process Reengineering: Strategic IT initiatives in manufacturing	To impart to the participants insights on strategy formulation for IT and its applications, with a special reference to the manufacturing industry. Introduce the participants to the various IT based platforms like ERP and SCM, widely deployed in the manufacturing industry. Acquaint participants with implementation strategies for IT platforms, which involve workflow analysis, business process reengineering and management of the accompanying organizational change.	IIMC
Product Design Prototyping	Exposure to customer need-design-prototyping-manufacturing cycle through case examples and projects To develop strategies for New Product Development, New Product Marketing, Product costing and New Product Pricing	IIT
New Product Management		

Frontier Technologies for Manufacturing	Awareness of futuristic technologies (e.g., nano, bio, fuel cells, microprocessor based controls, Shape Memory Alloys, etc) product/ process in manufacturing, Awareness of green production and Big R in manufacturing	IIT
Automation & Robotics	Identification of need and impact of automation on quality and productivity; Choice of appropriate (e.g., low cost automation) level of automation; Tools to evaluate human performance and ergonomic design of workplace; Development of skill in ergonomic design of workplace and low cost automation,	IIT
Computer Integrated Manufacturing	Understanding of information flow through computers on supply-manufacturing-delivery cycle; Understanding computer integrated manufacturing systems (e.g., CMS, FMS, etc); Skill building in CAE including process planning; Skill building in design of integrated manufacturing system using simulation tool	IIT
Advanced Materials	Exposure to understand and incorporate newer materials (e.g., nano, nano-materials, bio-materials, Shape Memory Alloys, smart polymers, hydrogen fuel)	IIT



Leadership & Decision Making	Problem Formulation	Mastering techniques for abstraction of key dimensions and multiple criteria from a problem description	IIT
(LDM-1)	Data Analysis	Data interpretation for decision making	IIT
	Decision Making Tools	To acquaint the participants with the most fundamental mathematical tools required for the management science, and to provide an introduction to some of the important statistical tools that are necessary for reaching efficient managerial decisions under uncertainty with emphasis on practical applications of the statistical tools.	IIMC
	Entrepreneurship	This course is a reflection of 2 major trends : a) National economic growth is enhanced significantly by entrepreneurial activity, b) A large group of management graduates have also become entrepreneurs or self-employed This course provides a strategic perspective in the area of New Ventures	

	Interpersonal Skills & Leadership	To appreciate and understand the behaviour of individuals and groups of individuals in organizations, with a view to enhancing both productivity and satisfaction of employees	IIMC
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### Proposed Academic Calendar of PGPEX-VLM (2014-15)

Term	Period		Days	Activity	
0	Thursday, 3 April 2014	-	Wednesday, 16 April 2014	13	(i) Inauguration/ Ice Breaking Session, (ii) Breakthrough Management and (iii) Business Communication
I	Thursday, 17 April 2014	-	Saturday, 17 May 2014	30	Course Work at IIM Calcutta
II	Monday, 19 May 2014	-	Saturday, 12 July 2014	54	Course Work at IIM Calcutta
III	Monday, 14 July 2014	-	Friday, 18 July 2014	4	Quality Management System Auditor/ Lead Auditor Training by Bureau Veritas (Based on ISO : 2008)
IV	Monday, 21 July 2014	-	Saturday, 13 September 2014	54	Course Work at IIT Kanpur
V	Monday, 15 September 2014	-	Saturday, 15 November 2014	61	Course Work at IIT Madras
	Monday, 17 November 2014	-	Saturday, 22 November 2014	5	Placement of Industry Internship at IIMC
VI	Monday, 24 November 2014	-	Saturday, 3 January 2015	40	Industry Internship in India
VII	Monday, 5 January 2015	-	Wednesday, 4 February 2015	30	Course Work at IIM Calcutta
	Thursday, 5 February 2015	-	Thursday, 19 February 2015	14	Final Placement at IIMC
VIII	Saturday, 21 February 2015	-	Tuesday, 3 March 2015	10	International Industrial Study Visit at Japan
	Thursday, 5 March 2015	-	Tuesday, 24 March 2015	19	Final Placement at IIMC



IIMC Boarding →

← IIT Kanpur



### Pedagogy

Learning through team based approach for addressing complex issues. Course delivery through an appropriate mix of class room lectures, case studies, class room exercises, individual and team assignments.

### Industry Tours

Domestic Industry Visit within the country and International Industrial study visit in Japan are integral part of the program with an objective of understanding national/ global manufacturing environment.



### Industry Internship

Eight weeks. The objective of the internship is to provide an opportunity for doing state-of-art research leading to a product/process redesign or an innovation.

← Ms. Deepa Gopalan Wadhwa, Indian Ambassador to Japan was present on 24th February, 2013 during SIR (Self Initiated Research) presentations by the PGPEX-VLM students when they visited Japan for their study visit and Prof. Shiba welcome her.

### Admission Process

Application form is to be submitted in form as given in Annexure-I. Selection of candidates will be made on the basis of his/her academic background, which has to be consistently first division/first class from school (SLC/ Madhyamik) Board examination level to graduation level, relevant work experience, employer's recommendations, performance in the Aptitude Test and Personal Interview to be conducted jointly by IIMC, IITK and IITM.

### Important Dates for admissions and Academic Calendar of 2014-15 Academic Session (8<sup>th</sup> batch)

1 <sup>st</sup> week of October 2013	Admission notification in National Dailies
November 29, 2013, Friday (Extended till December 12, 2013)	Last date of submission of Application Form enclosed with Demand draft of Rs.2,500 (Rupees two thousand five hundred) on account of Application Processing Fee drawn in favour of Indian Institute of Technology Kanpur, and payable at Kanpur.
December 13, 2013, Tuesday	Announcement of Short listed candidates for test & Interview
December 29, 2013, Sunday	Aptitude test and Interview at IIT Kanpur
December 29, 2013, Sunday	Announcement of Final list of selected candidates and waiting

	<b>list candidates.</b>
<b>January 17, 2014, Friday</b>	<b>Last date of submitting acceptance of offer to join the program in the form as given in Annexure II enclosed, with non-refundable payment of Program Admission fee of Rs. 60,000/- by Demand Draft in favour of Indian Institute of Technology Kanpur, payable at Kanpur.</b>
<b>January 20, 2013, Monday</b>	<b>Activation of waiting list , if required</b>
<b>For Waiting List Candidates only February 10, 2014, Monday</b>	<b>Last date of acceptance of offer to join the Program in the form as given in Annexure II enclosed with non-refundable payment of Program Admission Fee of Rs. 60,000/- by Demand Draft in favour of Indian Institute of Technology Kanpur, payable at Kanpur.</b>
<b>April 1, 2014, Tuesday</b>	<b>Registration for Admission from 11-30 a.m. at IIM Calcutta</b>
<b>April 3, 2014, Thursday</b>	<b>Commencement of Academic Session.</b>
<b>April 3 to July 18, 2014</b>	<b>Course work at IIM Calcutta</b>
<b>July 21 to September 13, 2014</b>	<b>Course work at IIT Kanpur</b>
<b>September 15 to November 15, 2014</b>	<b>Course work at IIT Madras</b>
<b>November 24 2014 to January 3, 2015</b>	<b>Industry Internship in India</b>
<b>January 5 to February 4, 2015</b>	<b>Course work at IIM Calcutta</b>
<b>February 5 to February 19, 2015</b>	<b>Final Placement at IIM Calcutta for eligible students</b>
<b>February 21 to March 3, 2015</b>	<b>International Industrial Study Visit in Japan</b>
<b>March 5 to March 24 2015</b>	<b>Final Placement at IIM Calcutta for eligible students</b>



## Program Fees for the Academic Session 2014-15 (8<sup>th</sup> batch)

- A. TO BE PAID TO PGPEX-VLM OFFICE, INDIAN INSTITUTE OF MANAGEMENT CALCUTTA. D H. ROAD, JOKA, KOLKATA 700104**  
**Program Admission Fee of Rs. 60,000/=** to be paid by Demand Draft drawn in favour of “Indian Institute of Technology Kanpur” payable at any Bank in Kanpur along with the acceptance of the admission offer latest by Monday, 17<sup>th</sup> January, 2014 and 17<sup>th</sup> February 2014, Monday in case of waiting list candidates offered admission.
- B. TO BE PAID TO PGPEX-VLM OFFICE, INDIAN INSTITUTE OF MANAGEMENT CALCUTTA. D H. ROAD, JOKA, KOLKATA 700104**  
**Program fee of Rs.3,52,500/=** to be paid by Demand Draft drawn in favour of “Indian Institute of Management Calcutta” payable at any Bank in Kolkata latest by Tuesday, April 1, 2014.
- C. TO BE PAID TO PGPEX-VLM OFFICE, DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, KALYANPUR, KANPUR-208016**  
**Program Fee of Rs.1,95,000/-** to be paid by Demand Draft drawn in favour of “Indian Institute of Technology Kanpur”, payable at any Bank in Kanpur latest by Monday, July 21, 2014.
- D. TO BE PAID TO PGPEX-VLM OFFICE, DEPARTMENT OF MANAGEMENT STUDIES, INDIAN INSTITUTE OF TECHNOLOGY MADRAS, CHENNAI-600 036**  
**Program fee of Rs. 1,95,000/-** to be paid by Demand Draft drawn in favour of “Indian Institute of Technology Madras”, payable at any Bank in Chennai latest by Monday, September 15, 2014.
- E. TO BE PAID TO PGPEX-VLM OFFICE, INDIAN INSTITUTE OF MANAGEMENT CALCUTTA, D. H. ROAD, JOKA, KOLKATA-700 104**  
**Final Program fee of Rs.97,500** to be paid by Demand Draft drawn in favour of “Indian Institute of Management Calcutta”, payable at any Bank in Kolkata by Monday, January 5, 2015.



Duly filled in Application Form with declaration etc. and with a demand draft of Application Processing Fee of Rs.2,500 (Rupees two thousand five hundred) drawn in favour of Indian Institute of Technology Kanpur and payable in Kanpur should be sent by 29<sup>th</sup> November 2013 by Registered Post / Speed Post to :

## CONTACT ADDRESSES

**Indian Institute of Technology Kanpur ([www.iitk.ac.in/ime/vlm](http://www.iitk.ac.in/ime/vlm))**

### **VLFM Coordinator**

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Professor

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### **VLFM Co-Coordinators**

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### **VLM Office**

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**Kanpur-208016, Uttar Pradesh**

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**Website : [www.iitk.ac.in/ime/vlm](http://www.iitk.ac.in/ime/vlm)**

## CONTACT ADDRESSES

**Indian Institute of Management Calcutta ([www.iimcal.ac.in/pgpexvlm](http://www.iimcal.ac.in/pgpexvlm))**

PGPEX-VLM Office

**Indian Institute of Management Calcutta**

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Email : [vlmp@iimcal.ac.in](mailto:vlmp@iimcal.ac.in)

Website : [www.iimcal.ac.in/pgpexvlm](http://www.iimcal.ac.in/pgpexvlm)

## CONTACT ADDRESSES

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