MS PROGRAM IN ADVANCED IT
with specialization in
OIL AND GAS ENGINEERING

**INTERNATIONAL INSTITUTE OF
INFORMATION TECHNOLOGY**

INTERNATIONAL INSTITUTE OF
INFORMATION TECHNOLOGY

I²IT

ज्ञानं सविज्ञानम्

INNOVATION & LEADERSHIP

www.isquareit.ac.in

www.gubkin.ru

In collaboration with and accredited by
**Gubkin Russian State University
of Oil and Gas, Moscow, Russia**

TABLE OF CONTENTS

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY

International Institute of Information Technology (I²IT), rated amongst the top Technology schools in India (NASSCOM-IDC-Dataquest May '05), is situated amongst IT leaders such as Infosys, Wipro, Tata Technologies and Cognizant at the Infotech Park, Hinjewadi, in Pune.

Bharat Ratna Dr A P J Abdul Kalam, the Honorable President of India, inaugurated I2IT on the 28th of May 2003. With a curriculum developed and delivered by leading academicians and industry professionals, I²IT provides aspirants with fully residential MS and MBA Programs in Advanced Technology. The Institute is an approved center of the University of Pune for research leading to Ph D in Engineering.

Collaborating with universities and educational institutions from all over the world I²IT offers programs that are internationally recognized and industry-relevant. I²IT attracts and trains the brightest students from all over India as well as other countries. I²IT provides state-of the-art infrastructure, excellent research environment and highly qualified faculty to fully develop a student's potential.

I²IT also concentrates on developing a student's self-confidence and personality, and promotes team-based goal achievement. By cultivating values of innovation and leadership I²IT aims to produce the industry leaders of tomorrow. It is this focus on holistic development that is fast earning it the reputation of being amongst the best Technology schools in India.

I²IT, India

VISION

To create a launch platform to propel India to a new high in an ever-expanding IT space driven by innovation and leadership.

MISSION

To be one of the world's esteemed institutes for advanced education and research in IT & Management.

CHARTER

Carry out education and training in IT and IT Management at a post-graduate level, with graduates drawn from different disciplines and prepare them as innovators and leaders of the IT industry.

Actively pursue advanced research in IT, develop innovative products, technologies and services.

Create web-based education in advanced IT.

I²IT, MOSCOW

I²IT, India offers Programs in academic collaboration with Russian-Indian Center for Advanced Computing Research (RICCR), Moscow, Russia and Moscow State University, Russia.

RICCR is engaged in the development of supercomputing applications in science and engineering and is promoted by the Institute of Computing Aided Design (ICAD) of the Russian Academy of Sciences (RAS) and the Center for Development of Advanced Computing, India.

Programs are fully accredited by the Moscow State University, Russia, which is a member of RAS; the highest educational body in Russia. As part of the Programs, students spend semesters in Russia at I²IT, Moscow which has been setup in the RICCR campus. The distinguished faculty team comprises of Lenin Prize winning academicians and professors from RAS and Moscow State University as well as working professionals from the industry.

Students reviewing the Param Supercomputing Facility at RICCR, Moscow

Prof Gushin inducting students to the program at I²IT, Moscow

GUBKIN UNIVERSITY

Gubkin Russian State University of Oil and Gas, Russia's principal higher educational institute of petroleum engineering has now been in existence for almost 75 years.

The university was originally founded on April 17, 1930, on the basis of the Faculty of Oil of the Moscow Mining Academy; the institution began with 1135 students and consisted of four faculties - Geology and Oil Prospecting, Mining Engineering, Oil Processing and Economics. University has developed a wide research capacity, which has led to the development of many new methods of exploration, production, transportation, refining and processing of hydrocarbons. It has since become a research center of oil and gas higher education of the Russian Federation.

The University works in close contact with the enterprises of the oil and gas industry. They train specialists for the research institutions and companies, and the latter in turn offer their facilities and staff for the students to do practical projects and work on their term and graduate theses.

The University co-operates with all oil and gas majors and refineries of Russia. The heads of the companies have established the Council of Trustees and the Fund for Petroleum Engineering Education Development, which give the students a wonderful opportunity to visit different far-off parts of the country such as the Island of Sakhalin and Kamchatka, the Barents Sea, Siberia and the Volga Region.

Gubkin's research program aligns itself to their specialists' training orientation and maintains a branch research laboratory. It also has international connections with partners in the USA, Germany, France, Great Britain, China and others.

Gubkin State University of Oil and Gas: 119991, Moscow, GSP - 1, Leninsky Prospect, 65
dis@gubkin.ru | Tel: (495) 135 73 86

INFRASTRUCTURE AT I²IT

CAMPUS AMENITIES
- Sprawling 12-acre institute premises
- Medical emergency and care centre including nursing centre
- Fully air-conditioned and well-equipped lecture theatres, labs and library
- Well-stocked physical library along with a comprehensive digital library
- State-of-the-Art Convention Center equipped with audio-visual system and high-tech lighting setup
- Cafeteria serving multi-ethnic cuisine and has the capacity to accommodate up to 600 people
- Sports and gymnasium facilities
- Excellent hostel facilities with high speed internet connectivity, shared accommodation and modern amenities.
- Single-bed AC rooms are also available

COMPUTING FACILITIES
- Computing facility based on multiprocessor servers
- State-of-the-art multimedia desktops and workstations
- Well-equipped internetworking laboratory
- Sophisticated management tools, facilitating totally-managed network environment for learning
- Online study framework and online student facilitation framework on the wired campus intranet

CONNECTIVITY
- High-speed campus wide network connecting multimedia desktops to the multiprocessor servers
- Gigabit backbone implemented through fibre optic cables
- Broadband connectivity to the internet

I²IT's ACADEMIC TEAM

I²IT has a distinguished faculty comprising of highly qualified academicians and industry experienced professionals. Each person brings his/her own unique experiences and teaching methods to the classroom and students benefit from the mix of influences.

The teaching style at I²IT differs from that at other institutes. Lectures are characterized by an interactive exchange of knowledge where the student does not just sit and imbibe information. The faculty strives to open your mind to the various possibilities and expand your horizons to fully realize your potential.

Faculty members stay up-to-date with the latest happenings and trends in the industry and make sure the students do too. Projects and assignments are always based on real-life scenarios with rigorous 'real-life' like deadlines. Faculty members drive I²IT's ethos and train you to become one of tomorrow's leaders and innovators.

Krishna Moorthy	**Director, I²IT**
K L Asanare	**Director, School of Engineering**
A Rakshit	**Dean, School of Information Technology**
S. Sankaran	**Dean, School of Management Technology**

MBA Faculty

Neeta Baporikar	Professor
Narendra Sakhalkar	Professor
S Vijaykumar Bharathi	Senior Lecturer
Rama Gautam	Senior Lecturer
Srikanth Acharya	Senior Lecturer
Aradhana Gandhi	Lecturer
Raji Nair	Lecturer
Mandar Joshi	Senior RA
Sonal Daulatkar	RA

AST Faculty

Atanu Rakshit	Professor & Head
Pankaj Roy Gupta	Professor & VP Industry Linkages & Projects
Tathagata Bhattacharjee	Assistant Professor
Vaishali Kunchur	Assistant Professor
K S Reddy	Assistant Professor
Manisha Akolkar	Senior Lecturer
S S Suresh	Senior Lecturer
Vaishali Kadam	Lecturer
Vinay Gupta	Senior RA - (Teaching)
Divya Unni	Senior RA - (Teaching)
Nivarutti Patil	RA
C. Namrata Mahinder	RA
Rajiv Ranjan	RA

MBA Faculty

Neeta Baporikar	Professor
Narendra Sakhalkar	Professor
S Vijaykumar Bharathi	Senior Lecturer
Rama Gautam	Senior Lecturer
Srikanth Acharya	Senior Lecturer
Aradhana Gandhi	Lecturer
Raji Nair	Lecturer
Mandar Joshi	Senior RA
Sonal Daulatkar	RA

AST Faculty

Atanu Rakshit	Professor & Head
Pankaj Roy Gupta	Professor & VP Industry Linkages & Projects
Tathagata Bhattacharjee	Assistant Professor
Vaishali Kunchur	Assistant Professor
K S Reddy	Assistant Professor
Manisha Akolkar	Senior Lecturer
S S Suresh	Senior Lecturer
Vaishali Kadam	Lecturer
Vinay Gupta	Senior RA - (Teaching)
Divya Unni	Senior RA - (Teaching)
Nivarutti Patil	RA
C. Namrata Mahinder	RA
Rajiv Ranjan	RA

ANT Faculty

Bharat Chaudhuri	Professor
Ravindra Joshi	Assistant Professor
Amit Hirway	Assistant Professor
Ajithkumar	Senior Lecturer
Sahana Bhosale	Senior Lecturer
Vinayak Patil	Lecturer
Kishore Pawar	Sr. RA
Vaibhav Malewadkar	RA
Mohini Sudan	RA - Wireless

VLSI Faculty

Manish Patil	Associate Professor
Jayashri Patil	Lecturer
S Prakash	Lecturer
Pragnojit Roy	Lecturer
Neelam Gujrathi	Senior RA (Teaching)
Rajendra Tawade	RA
Anita Patil	RA

ESD Faculty

Srikanth Thiagarajan	Professor & HOD
Selvaraju M	Lecturer
S M Naidu	Senior RA (Teaching)
Girish Choudankar	Senior RA (Teaching)
Prashanth Ravindran	RA
Sheetal Deshpande	RA
Swapnil Bakare	RA

CFD Faculty

S Das	Associate Professor
Kaushal Prasad	Associate Pofessor
S. B. Kulkarni	Lecturer
P. S. Soman	Lecturer
Rajiv Ranjan	RA

Electrical Engineering Faculty

M N Tagare	Assistant Professor
M N Chougule	Lecturer
H R Kulkarni	Lecturer
S H Mhabadi	Lecturer
S S Chopade	Lecturer
P G Kale	Lecturer
V N Kalkhambkar	Lecturer

Mechanical and Automobile Engineering Faculty

Anil Deshmukh	Professor
Ch V Ramana Murthy	Professor
Mohini Sudumrekar	Associate Professor
V. Murali Mohan	Assistant Professor
Bhartesh A. Dhanavade	Assistant Professor
Prashant P. Patunkar	Lecturer
Prasad M. Parulekar	Lecturer
Umesh D. Gulhane	Lecturer
Sunil R. Pansare	Lecturer
Milind S. Yadav	Lecturer
Sachin S. Mestry	Lecturer
Kundan S. Ramteke	Lecturer
Vidyasheel S. Bagade	Lecturer
Kedar Datar	Lecturer

Academic Alliance Faculty

Russian Academy of Sciences (RAS), Russia

O.M. Belotserkovskii	Director ICAD RAS
Yu.V. Gulyaev	Director IRE RAS
S.P. Kapitsa	Prof. Emeritus
Yu.P. Popov	Director Keldysh IAM RAS
V.A.Gushchin	Deputy Director, ICAD RAS
B.N.Chetverushkin	Director, IMM RAS
V.L. Yakushev	Scientific Secretary, ICAD RAS
Yu.D. Shevelev	Professor
V.M. Chechetkin	Professor
T. Kozubskaya	Professor
A.I.Tolstykh	Professor
A.I. Lobanov	Professor
V.V. Podinovskii	Professor
I. Repina	Professor
M.N. Antonenko	Professor
V.A. Garanzha	Professor
V. Piskovski	Professor
M.A. Tolstykh	Professor

Lawrence Technological University, USA

Lewis Walker	Vice President and Provost
Maria Vaz	Associate Provost and Dean of Graduate Programs
Steven K. Howell	Department Chair
Lisiecki	Assistant Department Chair
Khalil S. Taraman	Program Director
Suresh C. Bansal	Program Director
Badih Ali Jawad	Program Director
Daw R. Al-werfalli	Program Director
S Bhonsle	Professor
Feierfeil	Professor
Harold Josephs	Professor
Patricia Shamamy	Professor

GUEST SPEAKERS AND LECTURERS

I²IT has a strong Industry Interface Program. The Institute regularly conducts seminars and workshops on developing sectors and advanced subjects in the field of technology. A case in point is the Seminar and Workshop on Wireless Technologies in the month of October, 2005, in collaboration with International Center for Theoretical Physics (ICTP), Italy and the International Telecommunications Union (ITU). This workshop was attended by professionals and academicians in the area of telecommunications from various countries and gave students an opportunity to learn from the international experiences of the participants. Several such seminars and workshops take place every year on campus providing students with a rich professional experience.

I²IT regularly invites industry leaders and eminent personalities throughout the year as guest lecturers and speakers. Speakers share their life experiences with the students who get the opportunity to hear first-hand how these great achievers reached the top. These business and technology icons speak on the latest subjects and industry trends and students are exposed to cutting-edge ideas in IT and Business. I²ITians get a chance to have an open interaction with industry leaders and leading technologists and gain a deeper understanding of the real-world complexities in today's technology.

Visionaries who have visited I²IT include Azim Premji, Chairman of Wipro Technologies, R. Venkatesan, CEO of Microsoft India, Sam Pitroda, Chairman of Knowledge Commision, Kiran Karnik, President of NASSCOMM and many others.

Some of the prominent visitors and guest lecturers at I²IT have been:

Alfred Rosenbloom	Associate Professor of Marketing, Dominican University, USA
Alvaro Fishcer	President, Technologies, University of Chile, Chile
Arun Jaura	Vice -President, Automotive Sector, Mahindra and Mahindra
Azim Premji	Chairman, WIPRO
B G Deshmukh	(Ex) Cabinet Secretary, Govt of India
Cyrus Grant	Professor of Computer Science and Management Information Systems Dominican University, USA
David Daniel	Ambassador of Israel to India
Deepak Ghaisas	MD, I-Flex Solutions
Digvijay Khanvilkar	(Ex) Minister of Public Health, Maharashtra
Dipankar Choudhary	CTO Fluent Inc, USA
Douglas Valroch	SETI Institute, Mount View, California, USA
Ghanshyam Dass	NASDAQ, India
IR Didier Tytgadt	CEO "Agent Business Force" Belgium
Irwin Mark Jacob	Chairperson, Qualcomm, USA

Dr Ravi Sethi, Prof Sunil Patil, Prof Atanu Rakshit and some of the members of the PR committee

Alfred Rosenbloom	Associate Professor of Marketing, Dominican University, USA
Alvaro Fishcer	President, Technologies, University of Chile, Chile
Arun Jaura	Vice -President, Automotive Sector, Mahindra and Mahindra
Azim Premji	Chairman, WIPRO
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David Daniel	Ambassador of Israel to India
Deepak Ghaisas	MD, I-Flex Solutions
Digvijay Khanvilkar	(Ex) Minister of Public Health, Maharashtra
Dipankar Choudhary	CTO Fluent Inc, USA
Douglas Valroch	SETI Institute, Mount View, California, USA
Ghanshyam Dass	NASDAQ, India
IR Didier Tytgadt	CEO "Agent Business Force" Belgium
Irwin Mark Jacob	Chairperson, Qualcomm, USA
J J Roces	Asian Institute of Management, Philipines
Javed Akhtar	Lyricist
Jeff Nadler	University of South Florida, USA
John Sinnott	MD, Chart Program, USA
Jurgen Moll	CTO, Giesecke and Devrient, Germany
Kiran Karnik	President, NASSCOM
Kumud Bansal	(Ex) Principal Secretary, Technical Education, Maharashtra
Laurence G Branch	(Ex) Dean, College of Public Health, USF Florida, USA
Gurubaxani	(Ex) GOC in C Southern Command
Mel Siegel	Associate Research essor & Director Measurement and Control Lab, Carnegie Mellon University, USA
Patrick Sutch	(Ex) NASDAQ Stock Market, London
Pratap Sinh Rane	Chief Minister, Goa
R Natrajan	(Ex) Chairman, AICTE
Ravi Sethi	President, Avaya Labs
Ravi Venkatesan	Chairman, Microsoft Corporation India
Reine Biesenbach	CSIR, South Africa
S D Pradhan	Chairman CEO, IPOSIS Software

From L to R: Dr Rakshit, Dr Bhatkar, Dr & Mrs Radicella, Mr P P Chhabria, Mrs Aruna Katara, Dr Pitke & Dr Blaunshtein with the participants of the Workshop on Wireless Technologies

Mr P P Chhabria and Mr Azim Premji at I²IT

INTERNATIONAL COLLABORATIONS

Dominican University, Chicago, USA
A 100-year old comprehensive accredited university in Chicago, the Dominican University offers programs in over 50 fields including Business and Information Technology. It was ranked in the top 15 Midwest Masters level universities by the US News and World Report 2004 issue of America's Best Colleges. www.dom.edu

Lawrence Technological University, USA
Founded in 1932, the Lawrence Technological University is a private accredited university located in South Michigan. One amongst the top five Automotive Engineering schools in the USA, it is at the heart of the Automobile Industry. It stays in close proximity to some of the world's leading industrial, technological, business and scientific enterprises. www.ltu.edu

University of New Brunswick, Fredericton, Canada
Founded in 1785, the University of New Brunswick is one of the oldest public universities in North America. UNB offers graduate work and research in over thirty different fields and welcomes students from every corner of the globe. It enjoys a high profile as a research institution and its faculty and students have won many national and international awards. www.unb.ca

ESSCA, Hungary
ESSCA was founded in 1909 by the Catholic University of Angers and has since prepared 7,000 business graduates who now hold prominent positions in France and other countries. It entertains close links with the national and the regional business community and collaborates in exchange programs with 82 universities worldwide. ESSCA's annual intake of 330 students for its five-year graduate program is selected from 3,500 candidates. ESSCA welcomes more than 150 foreign students from its partner institutions each year. www.essca.asso.fr

ESEO, France
ESEO was founded in 1956 by the Chanoine J. Jeanneteau and has trained more than 3300 engineers in Electronics and Data Processing. The ESEO diploma is state-recognised (by the "Commission des Titres d'Ingénieur du Ministère de l'Education Nationale"). ESEO offers a highly qualified scientific and technical education. www.eseo.fr

ESIGELEC, France
ESIGELEC is a 104-year-old engineering school ("Grande Ecole") specializing in Networks, Embedded Systems, Electronics, Electricity, Computer Science, Automation, and InformationTechnologies. It is recognized by the French Ministry of Education and the French Ministry of Industry. www.esigelec.fr

EPITECH, France
The IONIS group is the first private high education institution in France with more than 28 affiliate schools and over 15,000 students. For nearly 30 years, the IONIS group has been defining excellence in Management Education with ISEG institutes. During the last 15 years, several others schools have contributed to the IONIS group expansion in Business and Commerce areas, Continuing studies, Avionic, Creativity and E-learning. By 1994, Computer Science Teaching and Research has been integrated with two new schools EPITA and later EPITECH. Today, with over 1400 students, EPITECH offers a wide range of courses. www.epitech.net

Lawrence Technological University, USA

Dominican University, Chicago, USA

Moscow State University, Russia

Russian-Indian Centre For Computing Research (RICCR), Moscow, Russia

RICCR has been established to develop scientific and technological cooperation between Russia and India. On 19th January, 2004, an MoU was signed to launch I²IT Moscow in the RICCR campus. It offers Masters, Doctoral and Post Doctoral Programs in Bio-technology, Bio-informatics and other emerging technologies. www.riccr.com The MS -CFD Program is conducted jointly by I²IT Moscow and RICCR and is accredited by Moscow State University. www.msu.ru

MAE FAH Luang University, Thailand

MFLU is situated in Chiang Rai, the northern province of Thailand. The University offers programs in Information Technology, Food Technology, Tourism, Language and Management. I²IT has jointly developed MBA/MS Programs in IT and these courses are being delivered by I²IT Faculty at the Bangkok campus of MFLU. www.mfu.ac.th

Beijing University of Posts and Telecommunications

Beijing University of Posts and Telecommunications (BUPT), founded in 1955. It has developed into an important research and development center in the field of IT and telecommunications in China. BUPT comprises of 13 schools and a strong teaching and research staff. The university has extensive academic exchange programs with many renowned enterprises and universities both at home and abroad. www.bupt.edu.cn

China Jiangsu / Changzhou College of Information Technology, China

China Jiangsu / Changzhou College of Information Technology and International Institute of Information Technology, India have agreed to establish friendly cooperation relationship in the academic field in order to further strengthen mutual exchanges and cooperation, share resources and supplement each other. www.ccit.js.cn

Hunan Science and Technology Vocational Institute, Changsha, China

Hunan Science and Technology Vocational Institute is a public college admitted by the Ministry of National Education and established under the permission of the Hunan government. It has more than 12000 students now enrolled and more than 40 majors are open to students, including Software, Electronics and Technology amongst others.

Information and Communications University (ICU), Daejon, Korea

ICU is the foremost information and communications university established by the Ministry of Information technology, Korea. ICU is the only technology university in Korea offering courses in English language with multiple international collaborations including Carnegie Mellon University, USA www.icu.ac.kr

Korea University, Seoul, Korea

Embracing the challenges of the 21st century, the university offers programs with emphasis on interdisciplinary studies and strategic partnerships. It focuses on IT and Technology by developing programs with a high integration of subjects thereby creating graduates with a vast exposure. www.korea.ac.kr

Sahmyook University, Seoul, Korea

Ninety-six years old, Sahmyook University is Korea's first co-ed university. Having installed optic fibre cables for communications, it was also the first to spearhead the Information Age in Korea. It offers programs focused on developing manpower for the 21st century. www.syu.ac.kr

ACADEMIC ALLIANCE PARTNERS

I²IT associates with tech-application companies. Students are exposed to state-of-the-art tools and software from SAP, SAS, TIBCO and CA. The curriculum is enhanced by inclusion of exposure to SAP solutions, business intelligence solutions from SAS, CA solutions for network management, security and software design and TIBCO solutions for EAI, middleware and BPM under academic licences from SAP, SAS, TIBCO and CA.

SAS is the leader in business intelligence and analytics. SAS software answers strategic business questions no one else can enabling organizations to control costs, drive revenue, achieve capital efficiency and lead with confidence SAS is the world's leader in business analytics software, delivering the breakthrough technology one needs to transform the way one does business. SAS software provides one integrated process for analyzing data from every source and gaining the predictive power to drive change at every level.

Founded in 1972, SAP is the recognized leader in providing collaborative business solutions for all types of industries and for every major market. Serving more than 32,000 customers worldwide, SAP is the world's largest business software company and the world's third-largest independent software provider overall. SAP has a rich history of innovation and growth that has made SAP a true industry leader. Today, SAP employs more than 35,000 people in more than 50 countries. SAP professionals are dedicated to providing the highest level of customer service and support.

CA is one of the world's largest IT management software providers. CA software and expertise unify and simplify complex IT environments in a secure way across the enterprise for greater business results. Founded in 1976, CA today is a global company with headquarters in the United States and 150 offices in more than 45 countries. CA serves more than 98% of Fortune 1000® companies, as well as government entities, educational institutions and thousands of other companies in diverse industries worldwide
.

TIBCO provides software and services that help companies orchestrate assest across the enterprise in real-time. TIBCO is a leading business integration and process management software that enables real time business, with almost twenty years of experience and thousands of customers

Giesecke & Devrient (G&D) is a globally operating technology group. Established in 1852, the company initially specialized in banknote and securities printing, later adding automatic currency processing equipment to its product portfolio. Today, G&D is also a leading supplier of smart cards and cutting-edge system solutions. Security and competence are the international high-tech group's core concepts. Its customer-focused products, systems and services make G&D a reliable partner for all organisations needing to solve complex problems in security-related fields.

ADVANCED TECHNOLOGY INCUBATION CENTER

The real test of technology education is the creation of an entrepreneur who gets creative ideas re-inforced in the education process in a technology school and is ready to start a new venture.

In order to nurture the entrepreneurial talent of young graduates, I²IT is setting up an Incubation Center under the aegis of I²IT Pvt. Ltd inside the I²IT campus.

The Objectives of setting up the Advanced Technology Incubation Center are:
- To promote and facilitate advanced research
- To facilitate transfer of knowledge and technology from I²IT to the industry
- To promote, in collaboration with other agencies, an entrepreneurial spirit in a university setting
- To promote diffusion of results produced by university research and public research centers to society, and to generate added value
- To promote, in collaboration with other agencies, creation of innovative advanced technology-based start up companies and to facilitate their sustainability and competitiveness
- To stimulate quality in all management processes and in the provision of services to groups, and to oversee the quality of research, development and innovation activities carried out
- To contribute, through technology and innovation, to increasing business competitiveness and development in the country.

The center will provide all types of assistance in terms of start-up infrastructure, venture funding, nurturing of the start-up, managerial assistance and promotional support.

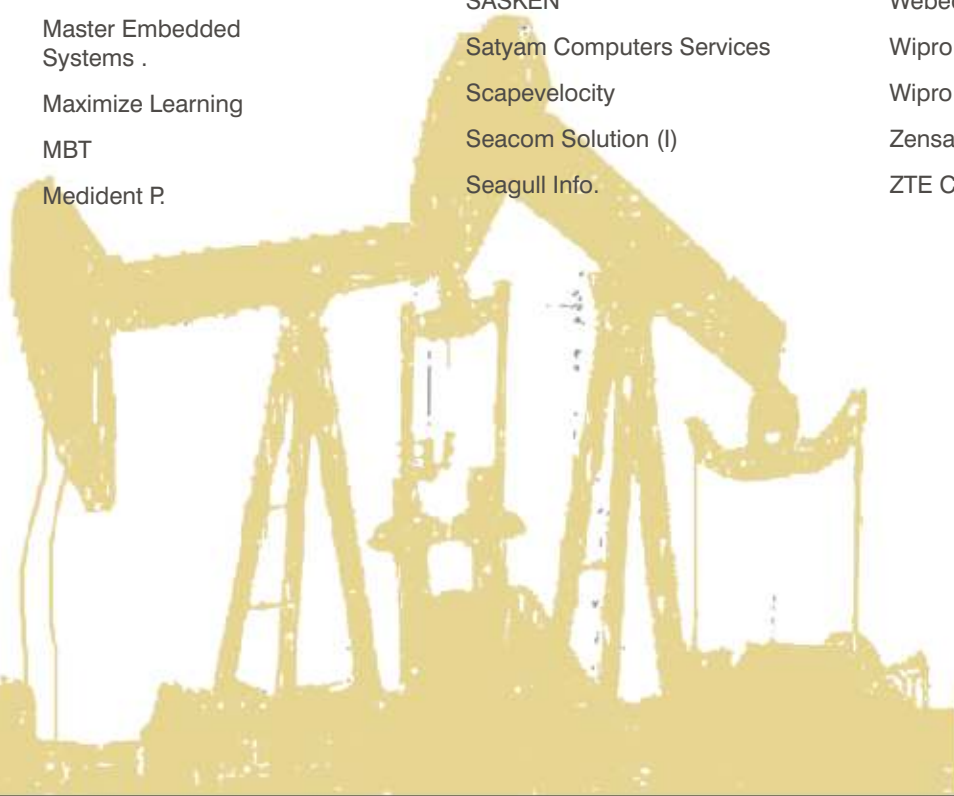Currently under implementation, the Center is expected to be fully operational by September 2006.

RECRUITMENT PARTNERS

At any IT and Business school, placement logistics are a reflection of the technical and managerial talent honed by students during their Masters programs. At I²IT, placement is not an event; it is an on-going process. It begins with counseling early in the program, continues with constant exposure to the industry and its dynamics by way of projects and assignments, and culminates in the final placement of students. The placement session begins with pre-placement talks. The objective of this preliminary interaction is to enable students to understand various company philosophies, ethics, expectations and operations, job profile and the package offered. Students are also briefed about the nature of orientation or training programs that they would be expected to undergo if selected. Campus placement and project internship processes at I²IT are conducted thrice a year, wherein organizations from all over India are invited to the campus. This is solely for project internships and final placements. More than 110 companies participate in the placement and internship process every year. I²IT encourages and nurtures independent thinking and the ability to explore unconventional avenues and there are many who choose the entrepreneurial path over the relatively easier corporate route to success.

3i Infotech	C-DAC	Ernst & Young
Accenture India	Cisco Systems	ETH Research Labs
Afila Tech (I)	CMS Computers	Exaband Technologies
Airtel	Cognizant Technology	Fast Track
Airtight Networks	Comptel	GE Medical Systems (I)
Alliance Semiconductor (I)	Computer Associates	Geometric Software Solution Company
Amazon India	Content Shoppe	
Amdocs	Convergys India Services	Hathway Datacom
Applabs Tech	Covansys	HCL Infosystem
Atlas Copco (Ind)	CRISIL	HCL Insys
Avaya (I)	Cybage Software	HCL Perot
Bajaj Allianz Life Insurance Co.	Deloitte Haskins	HCL Technologies
Bajaj Auto	Dewsoft Solutions	HDFC Bank
Beehive Consulting	Disha Technologies (I)	Head Strong
Benelec Infotech	Dishnet Wireless	Hero Honda Motors
Better Marketing	DSP Merill Lynch Funds Managers	Hoganas India
BPL Mobile Cellular		HP India
Bridgeline Software Enterprises	E- Convergence Tech.	HPCL
Cable & Wireless	Eagle Poonawala Group	HSBC Software Development Ind.
Cadence Design Systems Ind.	Elite Core Technologies	I2 Technologies
Cash-Tech Solutions (I)	Embywise Technologies	IBM Engineering Services
	Ericsson India	

ICICI Bank

Idea Cellular

I-Flex Solution

India Prepaid Services

Indicom Software

Indigo IT Solutions & Consulting

ING Vysya Bank

Infosys

Intel India

INTOTO Software Ind.

Ipeople

Iqara Telecom (I)

Istrat India

Jet Airways

Johnson & Johnson

Jubilant Biosys (I)

Kaizen Global

Kanbay Software (I)

Karvy Consultants

Keane India

Keynet Capital

Kotak Insurance

Kotak Securities

KPIT Cummins Infosystems

L & T Infotech

LG Electronics (I) .

M Source India

Manager SP

Master Embedded Systems .

Maximize Learning

MBT

Medident P.

MEIL E-Securities

Microline (I)

Mind Tree Consulting

MKCL

Modular Infotech

Mphasis (IT Services)

NCC Telecom

Neilsoft

Nipuna services

NIS Sparta

Nital Computer Systems

North Bridge

Omniscent

Oracle Corporation

Parasoft Software

Patni Computers Systems

PCS Technology

Persistent Systems

Polaris Software

Price Water House Coopers

Progeon

Punjab National Bank Limited

Qualcore Logic

Reliance Infocomm

Rolta (I)

S P Software

Saba Software (I)

Sahara.Net

SASKEN

Satyam Computers Services

Scapevelocity

Seacom Solution (I)

Seagull Info.

Seemaphor Tech

Selectica India

Serum Institute of India

Share khan .com

Siemens (I)

Siemens Information Systems

Sierra Atlantic

Sify

Silicon Interface

Sixcube Technologies

Sriram Net

Sterling Infotech

Suma Software

Syntax

Synygy India Pvt.

Tally Solution

Tata Autocomp

Tata Infotech

Tata Steel Wires

TBWA India

TCS

Techaxis

Thakur Infotech

Unifreight India

US Software

V Customer Services (I)

Value Notes Database

Videocon

Webecome India

Wipro Infotech

Wipro Technologies

Zensar Technologies

ZTE Corporation

MS Program in Advanced IT
with specialization in
OIL & GAS ENGINEERING

ABOUT THE PROGRAM

PROGRAM MISSION

Increasingly, natural gas is considered the energy and chemical source of the future due to being environmentally clean, efficient to use, economical, and widely available globally. This program is co-sponsored by the International Institute of Information Technology, Pune India, Russian Academy of Sciences and Moscow Sate University. The intent is to provide post-graduate education to qualified students and further prepare them with technical skills and commercial knowledge to fill the demand of the growing natural gas industry. It will serve at the interface between a conventional engineering graduate degree and a business degree. The program will prepare individuals with a system view on the full value chain of natural gas and oil. It also emphasizes leadership training and teamwork among technical and commercial professionals. No other interdisciplinary professional master's degree with an emphasis on natural gas and oil engineering, information technology and management is presently offered internationally. Therefore, this program offers a unique opportunity for those interested in working in the Natural Gas, oil and associated industries.

The MS Program in Gas and Oil Engineering & Management is designed to integrate the technical and commercial aspects of natural gas learning into a graduate degree program. The program views the global natural gas industry and the energy corporations as the anchor clients with individual students and professionals as the customers.

PROGRAM VISION

- To provide the best world-class leadership training in the full cycle value chain of natural gas and oil technology and management. To promote natural gas technology in the global energy arena by developing innovative technologies, responsible policies, and appropriate practices.
- To improve the competitiveness of natural gas by emphasizing environmental responsibility, safety, and reliability.

PROGRAM AIM

- The aim of this program is to provide across-the-board professional education and training for the oil and gas industry. The program will provide students with advanced technical and managerial techniques that can be applied in the oil and gas industry and enable them to take on major responsibility early in their careers.

PROGRAM OBJECTIVES

- Deepen the technical knowledge of the students to keep them abreast of technical innovation in this fast moving industry and competitive environment.
- Broaden the knowledge of students to enable them to better communicate with other industry specialists.
- Improve the employability of students and professionals from other sectors entering the oil and gas industry
- Assist those with little oil and gas engineering experience to decide which part of the industry best suits their skills and interests.

PROGRAM STRUCTURE

This is a four trimesters campus based Masters of Science Program in Gas and Oil Engineering and Management. The Program will provide following specializations:

- **Petroleum Engineering**
- **Process Engineering**
- **Offshore Engineering**

CURRICULUM

Specialization: **Petroleum Engineering**

SEMESTER: I
I^{2}IT, Pune, India

Course	Type	Semester	Credits
Computer Architecture And Operating System	Bridge	I	Nil
Data Structure And Algorithm	Bridge	I	Nil
C Language/Fortran	Bridge	I	Nil
Applied Mathematics	Bridge	I	Nil
Advanced Mathematics	Foundation	I	1
Mathematical Modeling & Simulation	Foundation	I	2
Basic Fluid Mechanics	Foundation	I	2
Computational Mechanics And Numerical Mathematics	Foundation	I	2
Introduction to Natural Gas Engineering	Foundation	I	2
Natural Gas Production Engineering	Foundation	I	2
Natural Gas Storage Engineering	Foundation	I	2
C++ Programming	Foundation	I	2
Russian Language	Compulsory	I	1
TOTAL CREDITS			**16**

AST 001 : Computer Architecture and Operating Systems
This course covers operating system design concepts with examples from Linux and Windows operating systems. It also focuses on the study of the hardware structure of computer systems and sub-systems. The topics in computer architecture include: Processor architecture, Parallelism and pipelining Cache and memory organization, I/O controllers and interconnection structures. The topics in operating system include: Operating system structures process and thread management, memory management virtual memory, file system I/O subsystem and device management communication protection and security.

AST 003 : Data Structures and Algorithms
This course focuses on the different data structures and their applications in computer programming. The data structures covered here are array, stack, queue, linked lists, binary tree and various sorting and searching algorithms.

AST 004 : C language
An in depth course on the C Programming language for programmers who are going to write both application and system programs. Some prior knowledge of a high level language (eg, Pascal, Basic, Fortran) is a pre-requisite. In addition to covering basic syntax and semantics, the course emphasizes on problem solving methodology and modular programing techniques. The module focuses on imparting a working knowledge of the C programing language (using ANSI standard C and libraries). Have basic knowledge of common techniques such as linked lists, queues, etc. Understand basic mathematical techniques related to computing (error estimates, resource estimates, etc.).

CFD 001 : Applied Mathematics
Students who have not specialized in Mathematics will be given the set formulae and basic structures of mathematical history. The bridge course in mathematics aims at revising the basics of matrix algebra, differential equations, three dimensional system of coordinates, vector algebra and numerical methods of solving differential equations.

CFD 002 : Advanced Mathematics

Advanced course in mathematics will prepare the students in vector calculus, Fourier series, partial differential equations with boundary values, Fourier transforms, complex functions with applications to fluid flow, numerical analysis with finite difference methods to solve partial differential equations, matrix method of solving differential equations using Eigen values and Eigen vectors and basics of stochastic process.

CFD 004 : Mathematical Modeling and Simulation

The course on mathematical modeling and simulation will enable the students to develop models to represent deterministic and probabilistic systems using the mathematical tools they have studied. Students will be asked to develop models to represent simple engineering systems, including fluid flow. Examples of modeling in different areas like biology, diffusion process, fluid flow; population studies and combat warfare will be discussed to help students use mathematical modeling. Monte Carlo simulation will be discussed for problems.

CFD 005 : Basic Fluid Mechanics

In this unit the students will be introduced to the basic concepts of fluid flow. The governing equations for incompressible/compressible fluids will be delivered and studied for a range of applications, elementary viscous flow, including Couette flow, boundary layers and tube flows; transition Reynolds number and concepts of turbulence; skin friction and pressure drop calculations. The latter half of the course will concentrate on the analysis of subsonic and supersonic flow past aerofoil, wings and related bodies.

CFD 006 : Computational Mechanics and Numerical Mathematics

This course is designed to teach students the underlying concepts of numerical solution techniques and specific methodologies for solving fundamental problems via computer algorithms. The course objective is to teach students the basic analysis techniques used to discretize continuous systems, as well as common methods to solve the resulting equations. The course is designed to familiarize students with the cornerstones of modern computer-based analyses, such as matrix equation solution techniques, least-squares fitting, numerical integration, finite difference and minimization approaches. An important objective and central theme of this course is to develop programming skills that will be drawn upon in other parts of the curriculum.

SEMESTER: II

Gubkin University, Moscow, Russia

Course	Type	Semester	Credits
Petroleum Geology	Core	II	2
Petroleum Fluids	Core	II	2
Reservoir Engineering	Core	II	2
Well Engineering	Core	II	2
Reservoir Performances	Advanced	II	2
Reservoir Simulation	Advanced	II	2
Numerical Solution of the Partial deferential Equations of Flow in Porous Media	Advanced	II	2
Phase Relations in Reservoir Engineering	Advanced	II	2
Numerical Reservoir simulation	Advanced	II	2
Russian language	Compulsory	II	2
TOTAL CREDITS			**20**

GOEM-01 Petroleum Geology

Petroleum generation, migration and entrapment. Interpreting seismic and petrophysical measurements. Reading geological diagrams. Prediction of generation, migration and accumulation of hydrocarbons to identify potential drilling targets. Data requirements from a well and methods used to predict the volume of hydrocarbons in place.

GOEM-503 Petroleum Fluids

Chemical composition of petroleum gas and oil. Carbon dioxide, hydrogen sulphide, hydrates and other compounds. Physical, chemical and thermal properties of hydrocarbons and multi component systems including: phase equilibria, vapour-liquid equilibria and thermodynamics. Equations of state modelling on HYSIS. Petroleum products and specifications: gas, Liquefied Natural Gas and Liquefied Petroleum Gas. Analysis and measurement of gas and liquid quantities.

GOEM-502 Reservoir Engineering

Basic reservoir rock and fluid engineering characteristics and analytical techniques to estimate hydrocarbon recovery. Methods to optimize reservoir development and recovery and data acquisition requirements to optimize and forecast future production.

GOEM-505 Well Engineering

Well completion, equipment and accessories design, evaluation and selection. Drilling, completion and production testing programmes. Drilling fluid selection. Casing, tubing and packer force analysis. Perforation techniques and equipment. Water and sand control. Special considerations for horizontal wells. Artificial lift design, evaluation and selection. Well simulation and remediation techniques including hydraulic fracturing, propping and matrix acidising. Production logging and data acquisition.

GOEM-509 Drilling Engineering

Well casing design including; geological issues, formation, types, pressure gradient, well trajectory and special considerations for deviated wells. Drilling operations including well bore stability, well control, running and grouting casing. Well control: prevention, remediation and special techniques. Drilling rigs, tools and mud systems. Problem wells, fishing, side tracking and completions. Floating drilling. Wire line operations and workovers. Information sources: mud logging, coring and measurement whilst drilling.

GOEM-611 Reservoir Performance

Advanced topics in reservoir engineering. Advanced well testing analysis. Reservoir energy and performance estimates. Aquifer modeling. Immiscible displacement and recovery calculations. Improved oil recovery methods.

GOEM-612 Production Operations

Prevention and treatment of formation damage. Rock mechanics and well performance. Preventing deposition of mineral scales, paraffins and asphaltenes in reservoir rocks, tubulars and surface equipment. Stimulation, acidizing and sand control in vertical and deviated wells. Detecting, controlling and reducing corrosion. Recognition of problem wells. Workover methods used to increase production, lower operating costs and improve profitability.

GOEM-613 Reservoir Simulation

Reservoir simulation: derivation of basic equations for ID, 2D and 3D models. Definitions, types of simulators, principles, data input, grid selection, history matching, pseudo functions, well management, other simulators compositional, chemical, thermal. Dual porosity.

GOEM-634 Numerical Solution of the Partial Differential Equations of Flow in Porous Media

Differencing schemes for the partial differential equations of single-phase flow; application to flow of gas and mixing in porous media.

GOEM-635 Phase Relations in Reservoir Engineering

Phase relations as applied to condensate and retrograde condensate reservoirs and to other problems in petroleum production.

GOEM-637 Natural Gas Engineering

Flow in producing or storage reservoirs; gas well testing; transmission systems; storage cycle; current developments.

GOEM-638 Natural Gas Storage Engineering

Engineering design of natural gas storage; identification of reservoirs, optimization of facilities.

SEMESTER: III
I2IT, Pune, India

Course	Type	Semester	Credits
Object Oriented Analysis and Design using JAVA	Core	III	3
Software Engineering and Project Management	Core	III	3
Software Testing	Core	III	2
Unsteady Flow in Porous Media	Advanced	III	3
Gas Lift Design and Optimization	Advanced	III	2
Advanced Risk Analysis in Oil and Gas Management	Advanced	III	3
TOTAL CREDITS			**16**

AST 602 : Object Oriented Analysis And Design Using Java
This course focuses on the major techniques of the Java Language, object-oriented analysis and design notation and how these techniques can be applied to improve quality of productivity during the analysis and design of application. The topics covered include object models, analyzing system requirements, modeling concepts provided by UML, analysis and documentation of software designs using the unified process, identification of use cases, behavioral designs, design patterns to refine analysis and design models, implementation, testable and adaptable designs.

AST 603 : Software Engineering and Software Project Management
This course provides a comprehensive analysis of software engineering techniques and shows how they can be applied in practical software projects, all with an object-oriented approach. This course extensively covers software processes technology, system integration, requirement management, software project management, verification and validation, risk analysis, pattern based reuse, dependable systems development, distributed system engineering and legacy systems.

AST 702 : Software Testing and Analysis
This course will focus on software testing at the module, subsystem and system levels; quality assurance techniques including inspections, version control, and configuration management. The course will attempt to prepare students to test software in a structured, organized way. It will provide practical knowledge of a variety of ways to test software, an understanding of some of the tradeoffs between testing techniques, and a feel for the practice of software testing using testing tools and the research in software testing.

GOEM-642 Unsteady Flow in Porous Media
The formulation and analytical solution of the transient fluid flow in porous media.

GOEM-643 Numerical Reservoir Simulation
Mathematical analysis of complex reservoir behavior and combination drives; numerical methods for the solution of behavior equations; recent developments

GOEM-644 Gas Lift Design and Optimization
Design of continuous and intermittent gas lift systems; multiphase flow and inflow well performance.

GOEM-646 Advanced Risk Analysis in Oil and Gas Management
Quantitative analysis of risk associated with oil and gas exploration and production investment.

SEMESTER: IV
I2IT, Pune, India

Course	Type	Semester	Credits
Project Specialization in	Viva, Presentation and Thesis	IV	8
TOTAL CREDITS :			**8**

SELECTION & APPLICATION

ADMISSION SESSIONS
I²IT accepts Applications for Admissions for January, June and September sessions

ELIGIBILITY CRITERIA
Applicants should be a B. E. / B. Tech / M. Tech. / MS (in Mechanical / Petroleum / Instrumentation / Electrical / Electronics / Civil / Chemical / Computer Science) / M. Sc. (Physics / Mathematics / Chemistry) or its equivalent and having a minimum of 60% marks at graduation/post graduation level.

APPLICATION PROCESS
(choose any one mode of application)
  Apply online (www.isquareit.ac.in) and send the copy of the documents along with a bank draft of Rs. 1000/- (for Indian students) / US $ 100/- (for foreign students) drawn in favor of 'International Institute of Information Technology', payable at Pune.

  OR

  Draft of Rs. 1000/- (for Indian students) / US $ 100 (for foreign students) drawn on 'International Institute of Information Technology' payable at Pune may be sent to I²IT at the address given below, to receive the application package.

SELECTION PROCESS
The selection of an applicant for the course is based on the following:
1. Scrutiny of the application form
2. Scores received at the basic qualifying exams.
3. Scores received at the 'Accepted Qualifying Examinations' like GRE / GATE or equivalent exams or performance in the Entrance Test for candidates without 'Accepted Qualifying Examination' scores.
4. Personal interview

FEES

PROGRAM FEE - 6,00,000/-
DEPOSIT - 25,000/-

TOTAL - 6,25,000/-

INCLUDES
Tuition fees payable to participating Institutes
Stay and food charges in India at I²IT

EXCLUDES
Visa Processing charges
Return Air fare to the country of collaborating University
Medical clearance and insurance charges
GRE / GMAT / TOEFL scores as per collaborating University norms

NOTE
Deposits are refundable at the end of the Program, subject to No-deduction Certificate
Fee mentioned are based on 4 sharing accommodation. In the event 4 sharing accommodation is not available, student will be expected to pay extra amount towards accommodation in a different type of room, as per availability

SCHOLARSHIPS AND FINANCIAL ASSISTANCE

I²IT recognizes and encourages potential. Scholarships, even up to a 100% tuition fee waiver, are provided to deserving students based on a merit-cum-means system of selection. Companies also offer financial assistance as per individual performance in relevant programs. All I²IT programs have been approved by SBI, Bank of India and Corporation Bank for Educational Loan. For any Educational Loan I²IT provides the necessary documentation to speed the loan procurement process, provided that the Admission process is first completed.

ACADEMIC COUNCIL

Vijay P Bhatkar
Chairman, Academic Council

Management Team

Krishna Moorthy
Director - International Institute of Information Technology

Atanu Rakshit
Deputy Director
Dean - School of Information Technology

Keshao L Asanare
Director - School of Engineering

Swaminathan Sankaran
Dean - School of Management Technology

Pankaj Roy Gupta
Associate Dean - Russia Programs
Vice President - Industry Linkages & Projects

Members

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Moscow

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Steve Puthuff
Chairman, Pres. & CEO–Step Communications Corp.,
San Jose

Govind Swarup
Prof. Emeritus, NCRA, TIFR

Sudeepto Roy
Director (Engg) – Qualcomm CDMA Technologies,
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Johnny K John
Director of Engg QCT DSP Systems – Qualcomm
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Research Director and Head of Entrepreneurial
Program, Darden Business School,
University of Virginia

Virendra Bhavsar
Prof. & Director of Adv. Computational Research,
University of New Brunswick, Canada

Young Soo You
President & CEO of Korea Foundation for
International Corporation of Science & Technology
(KICOS), Korea

R G Takwale
Prof. Emeritus, University of Pune

APEX MANAGEMENT

P P Chhabria
Chairman - I²IT & Finolex Group

Vijay P Bhatkar
Chief Mentor - I²IT

Aruna Katara
Executive Chair I²IT & Managing Trustee - Hope Foundation