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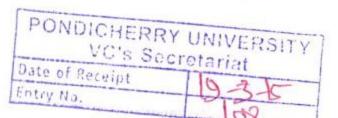
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F.No.19-1/2015-TS.VII Government of India

Ministry of Human Resource Development

Department of Higher Education



Shastri Bhawan, New Delhi, Dated 5th March, 2015

To,

- 1. The Secretaries of Technical Education of all States /UTs,
- 2. The Directors of Technical Education of all States/UTs,
- 3. The Member Secretary, AICTE
- 4. The Directors of all IIT's / IISc, Bangalore and IIITs,
- 5. The Directors of all IIM's / NITIE, Mumbai
- 6. The Vice-Chancellors of all Central Universities / States Universities.
- 7. The Directors of all NITs
- 8. The Director's of all NITTTR's / NIFFT-Ranchi/CIT-Kokraihar.
- 9. The Directors of SLIET-Sangrur/ NERIST-Itanagr.

Subject: - Short term faculty secondment to AIT, Bangkok by the Government of India for a period of upto 16 weeks — Invitation of nominations for semester commencing August-2015 & January-2016 - regarding.

Sir/Madam,

I am directed to say that Asian Institute of Technology (AIT), Bangkok is an autonomous International post graduate Institute providing advanced education in engineering, science and allied fields. The AIT's academic year has two terms which begin in August and January. The Government of India provides support to the AIT by way of faculty secondment for a period of upto 16 weeks in selected areas of specialization for above two terms. The areas under consideration for faculty secondment for August, 2015 and January, 2016 are enclosed.

2. The entire cost of secondment of Indian faculty to AIT, Bangkok including cost of air passages both ways and maintenance etc. is borne by the Government of India. Normally the period of secondment is upto 16 weeks each to coincide with an academic term of AIT, Bangkok. The seconded faculty are entitled to draw their pay plus special pay, if any, and allowances as admissible to them in India during their deputation period. Their pay and allowances etc are drawn and disbursed in India in Indian Currency. The seconded faculty are entitled to daily allowance in Bangkok as admissible vide Ministry of External Affairs orders in this regard issued from time to time. The exact amount of daily allowance in Bangkok depends on the rate determined by the Ministry of External Affairs for the particular period. Besides this, AIT also provides accommodation in the campus at subsidized rates subject to availability. The seconded faculty is entitled to travel by air by economy class in shortest route from the nearest port of embarkation in India to Bangkok and will also be entitled to excess baggage as per instructions issued by Government of India. The above-mentioned terms and conditions of secondment are tentative and subject to approval by the Ministry of Finance at the time of secondment. The salary in respect of faculty during the period of deputation will be met by their respective State Government/ Institution themselves. In addition, the leave salary, contribution of Provident Fund/General Provident Fund and Pension Contribution etc. in respect of the faculty deputed will be met by the respective State Govt./ Institution themselves.

To be put up with a note to VC.

Director of Shoha

- 3. You are requested to kindly give wide publicity of this scheme in your institution especially in the Departments covering the areas in which faculty secondment is being planned for the year 2015-2016. The nominee should have a doctorate degree in the relevant area, postgraduate teaching experience relevant to the course description indicated against the area and substantial research publications in the area to his credit. Nominations may kindly be sent in respect of only those candidates, who could be spared, in the event of their selection, for undertaking the proposed assignment at AIT, Bangkok for a period upto 16 weeks for the terms as indicated against each course. Since it is the endeavour of the Government to send best faculty from India to project the right kind of images at the international level, you are requested to kindly forward only those nominations that would be meeting the above mentioned requirement. The Selection Committee gives its recommendations to the Government on the basis of the biodata of the nominees placed before it. Therefore, five copies of the bio-data of the faculty recommended for consideration of the Selection Committee may be sent to this Ministry in the enclosed format as per Annexure-1. The above details relating to short term faculty secondment to AIT, Bangkok may also be seen at M/oHRD web-site www.education.nic.in
- 4. The last date for receipt of nomination in this Ministry is 15th April, 2015. The nominations are required in five copies duly screened and recommended by the Head of the Institution/Competent State Govt. Authority and to be sent to the following address:

Dalip Kapur
Deputy Secretary(T)
Department of Higher Education,
Ministry of Human Resource Development
Room No. 426-C
Shastri Bhawan,
New Delhi-110 115.

Yours faithfully,

Encl: as above

Deputy Secretary(T)

Tele: 23385220/Fax: 23070928

FOR AUGUST 2015 SEMESTER

I. School of Engineering and Technology (August 2015 Semester)

Course Code, Title, Credits	Course Description
IN84.33 Coastal Resiliency and Natural Disaster Preparedness, 3(3-0)	Elements of coastal community resilience; coastal population statistics, distribution and migration patterns; global warming debate; coastal hazards both episodic and chronic; Indian Ocean Tsunami of 1994; methods for measuring CCR; techniques for initiating CCR best practices into communities.
AT 72.01 Deterministic Optimization Models, 3 (3-0)	Deterministic optimization modeling, software packages, linear programming, integer programming and combinatorial optimization, dynamic programming, network flow, nonlinear programming.
AT 72.04 Engineering Economy,3(3-0)	Basic concepts in engineering economy, economic evaluation of alternatives, replacement analysis, accounting concepts, depreciation and taxation, product costing and cost estimation, risk and uncertainty, deterministic capital budgeting models.
AT 73.02 Advanced Manufacturing Processes, 3 (3-0)	Structural properties of engineering materials, subtractive manufacturing process, unconventional manufacturing processes, additive manufacturing processes, formative manufacturing processes, rapid prototyping systems, environmental aspects.
AT 73.17 Advanced Material Science for Design & Manufacturing 3(3-0)	Ferrous metals, non-ferrous metals, composite materials and processes, plastics, coatings, finishes and adhesives, testing of materials, deterioration of materials, economics of material selection, case studies of material selection.
AT 81.02 Digital Integrated Circuit Design, 3 (2-3)	Digital systems design process and CAD tools, combinational and sequential circuits design and implementation, input/output design and clock generation, design of memory, hardware description language (HDL), rapid prototyping and implementation of digital systems, memory system design and test, testing and design for testability (DFT).
AT 81.05 Analog Integrated Circuit Design, 3 (2-3)	IC technology, device modeling and layout, basic analog sub circuits, noise analysis and modeling, basic operational amplifier design, advanced operational amplifiers, comparators, integrated filters, data converters.
CE74.21 Irrigation and Drainage Engineering 3(2-3)	Soil water physics, irrigation development, crop/irrigation water requirement and scheduling, irrigation planning and design (basin, border, furrow, sprinkler and trickle systems), drainage criteria, steady/non-steady flow to drains, design discharges, surface/subsurface drainage systems design, irrigation drainage structures, land grading and excavation, laboratory/field exercises and measurements.

II. School of Environment, Resources and Development (August 2015 Semester)

Course Code, Title, Credits	Course Description
ED 70.21 Agriculture Sector Policy Analysis 3(3-0)	Conceptual framework for measuring food security; nutrition requirements and food consumption; policy impact on food security, forward and backward linkages between agricultural sector and the rest of the economy; new perspectives in agricultural policies interventions; and institutional and human capital development policies for sustainable agricultural sector development.

ED70.14 Instrumentation and Measurement Techniques, 3(2-3)	Instrumentation; principles and selection of transducers; signal conditioning circuits; measurement techniques of mechanical, environmental and process parameters; recording instruments; measuring systems performance; data acquisition and processing; error and their evaluation; analysis of experimental data; selected applications.
ED72.15 Energy Price Theory and Applications, 3(2-3)	Theory of the consumer (derivation and properties of a demand function; elasticity concepts); theory of the producer (cost concepts, production – and cost-functions); theory of the market (pricing under perfect competition, monopoly and oligopoly; market power and its effects); pricing of exhaustible and renewable energy resources; electricity pricing approaches, energy pricing in practice, different considerations in energy pricing and their implications, case studies.
ED78.25 Principles of Cleaner Production, 2(2-0)	Introduction to cleaner production; process studies for resource use, improving eco efficiency and reducing waste; cleaner production issues.
ED 76.01 Ecological Principles for Natural Resources Management, 3(3-0)	This course will provide an overview of the patterns and ecological processes that occur across tropical and subtropical forest ecosystems of Asia. Throughout the course, strong linkages will be made between the ecology of a tropical terrestrial ecosystems and how such knowledge can be used to inform natural resource management decisions.
ED 76.04 Biodiversity and Conservation, 3(3-0)	Biodiversity and its assessment; approaches to biodiversity conservation; planning and management of protected areas; biodiversity conservation outside protected areas.

FOR JANUARY 2016 SEMESTER

III. School of Engineering and Technology (January 2016 Semester)

Course Title	Course Description
AT 72.09 Inventory and Logistics Management, 3 (3-0)	Review of inventory system, traditional inventory models for independent demand, dependent demand system – material requirements planning (MRP), advanced production/ inventory models, introduction to logistics and supply chain management, logistics and supply chain processes.
AT 81.11 Mixed Signal IC, 3(2-3)	Design tools for IC prototyping, clock and signal distribution, interconnect issues, design for testability, advanced topics in digital system design, sub-system design, system design examples.
AT 76.03 Remote Sensing, 3(2-3)	Overview of RS application, interaction between electromagnetic wave and targets, satellite system and sensors, introduction to RS image processing, image enhancement, geometric correction, RS image classification.
CE 74.22 Irrigation and Drainage Systems Management, 3(3-0)	Irrigation and drainage issues, water management schemes, conjunctive use of water, deficit irrigation, water table management, water delivery control systems, water logging and salinity control, irrigation and drainage systems operation and maintenance, land improvement and reclamation, performance indicators and evaluation, water conflicts resolution, socioeconomic, institutional and environmental aspects, cost/benefit analysis.

CE74.53 Land and Water Conservation Management 3(2.5-1.5)	Rainfall-runoff relationships, erosion processes, erosion types, mechanical protection measures, diversion and drainage structures, gully stabilization, streambank stabilization, water harvesting, design of conservation structures, land-management approaches, biological measures, agronomic measures, agroforestry, watershed-scale approaches and measures, soil-erosion research methods, soil-erosion prediction models.
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IV. School of Environment, Resources and Development (January 2016 Semester)

Course Code, Title, Credits	Course Description
ED 79.06 Environmental Auditing 3(3-0)	Introduction to the nature of environmental problems in cities and the environmental effects of various urban activities, and how they are currently controlled and mitigated. It further deals with the development of environmental management systems and the key role allocated to environmental auditing. The course places emphasis on environmental audit and post-audit stages. Where relevant, reference is made to application of environmental audit techniques in the urban context such as in organizations, local governments and development institutions.
ED 79.07 Disaster Management in Urban Environmental Planning 3(3-0)	Disaster management covering mitigation, preparedness, response, rehabilitation and reconstruction; different types of hazards, hazard and vulnerability assessment at the city level; tools and techniques of risk assessment; environmental safety and security in the city; protection of lifelines and critical facilities; structural and non-structural mitigation measures; community-based approach to disaster management and capacity building.
ED 78.21 Water Quality Management, 2(2-0)	Water resources and ecosystems; properties of water and water quality parameters; sources of water pollution and types of wastes; water quality standards; assessment of water quality in rivers and lakes; strategies for water pollution control, monitoring, management planning; impact of global warming and climate change.
ED 76.03 Forestry 3(3-0)	The Forestry course provides an overview of three main forest management aspects: assessment, industrial management, and community-based management. Set within the context of Asia, this course will discuss the techniques to evaluate, monitor and analyze forests and forest management practices, as well as theory and application of emerging areas of forest management towards sustainable development and conservation. Hands-on experiences in forest mensuration and assessment will be gained through one weekend-long field trip to a forest monitoring project.

V. School of Management (January 2016 Semester)

Course Code, Title, Credits	Course Description
SM 80.06 Innovation Marketing and New Product Development, 3(3-0)	Innovation success, innovation failure, new product development techniques, disruptive technologies, diffusion of innovations, service innovations, market testing.
SM 80.08 International Marketing and Export Management, 3(3-0)	Exporting, globalization of markets, standardization vs. regional responsiveness, market entry strategies, global market research, global product policy, global pricing, global advertisement.