

QUALITY IMPROVEMENT PROGRAMME

Sponsored by
ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
(A Statutory Body of the Government of India)

STATUS REPORT
2010-2011



CENTRE FOR EDUCATIONAL TECHNOLOGY
INDIAN INSTITUTE OF TECHNOLOGY, GUWAHATI

PREFACE

The present report briefs about the activities of the overall Curriculum Development Cell and the Quality Improvement Programme at IIT Guwahati during the year 2010-2011.

During this year 03 numbers of teachers have joined the M. Tech. programme, and 01 number of teachers have joined for the final Ph. D. programme of the institute under QIP.

Out of fourteen nos. of selected QIP short-term courses only 13 nos. of courses were conducted on different topics during this Financial year .

The overall guidance of the Director, IIT Guwahati and Dean (Academic), IITG in the CDC activities is highly appreciated. The valuable support of the members of the Advisory Committee is also greatly acknowledged. Thanks are also due to staff of the QIP and the administrative and accounts staff of the Institute, without their active cooperation, the activities of the QIP/CDC would not have been successfully carried out. The support of AICTE is also gratefully acknowledged.

(Prof. S. Talukdar)

Coordinator, QIP

Quality Improvement Programme

Objectives & Programmes

Quality Improvement Programme (QIP) of the Ministry of Human Resource Development, Department of Education, Government of India, under the sponsorship of All India Council for Technical Education, New Delhi has been in operation at the IIT Guwahati since 2003-2004.

Quality Improvement Programme is being implemented with the objective of upgrading the expertise, qualification and capabilities of the faculty members of degree level technical institutions. The major activities under the QIP include:

- **Masters and Doctoral Programme** : Under this scheme, faculty member of AICTE approved institutions are given opportunity to upgrade their qualifications. Certain selected institutions offer Masters and Ph.D Programmes to the faculty members and they are paid scholarships and contingency grant by the Council. Recently, the facility of pursuing Masters Degree programmes has been extended to approved polytechnic teachers also.
- **Short Term Programme** : In order to upgrade the knowledge and skills of the teachers working in the different institutions in the country, AICTE provides Financial Assistance for organizing short term training programmes in the emerging areas of Engineering Technology / Pharmacy / Management etc.
- **Curriculum Development** : The major QIP Centres are provided assistance to organize workshops for Curriculum Development. This leads to Model Curriculum, which is used as base documents by many institutions. Besides, faculty members of the institute are given a small grant to develop lecture notes, presentation slides and to write text books on various subjects.

The following activities took place in the financial year 2010-2011:

Short Term Courses

List of Short Term Courses done under the financial year 2010-2011 are:

Sl. No.	Topic	Period	Department	Principal Faculty	No. of Participants
1	Recent Advancement of Intelligent Materials and its Applications	One week, 14-18, Dec 2010	Dept. of Mechanical Engg.	Dr. Dibakar Bandopadhyya & Dr. D. Chakrabarty	21
2	Developing tools for Biomedical Applications	One week, 20-24, Sept 2010	Dept. of Mechanical Engg. & Chemistry	Dr. S. Kanagaraj & Dr. G. Krishnamoorthy	15
3	Smart Materials and Devices: Preparation, Characterization and Applications.	One week, 09-13, Aug 2010	Dept. of Physics.	Dr. S. Ravi & Dr. D. Pal	18
4	Seismic Design of Building & Bridges	One week, 29 Nov-3 Dec 2010	Dept. of Civil Engg.	Dr. Arunasis Chakraborty & Dr. Kaustubh Dasgupta,.	25
5	Construction Management and Infrastructure Development	One week, 17-21, Jan 2011	Dept. of Civil Engg.	Dr. L. Boeing Singh & Dr. B. Pradhan	18
6	Road Maintenance and Safety	One week, 11-15 Oct 2010	Dept. of Civil Engg.	Dr. Akhilesh Kumar Maurya & Dr. Rajan Choudhary,	22
7	Scientific Computing in Chemical Engineering	One week, 6-10, Dec 2010	Dept. of Chemical Engg	Dr. P. Balasubramaniam & Dr. S.K. Majumder	25
8	Multimedia Communication	One week, 20-26, Oct 2010	Dept. of CSE	Prof. Sukumar Nandi & Dr. Arijit Sur	32
9	Ergonomics and Technology Applications	One week, 25-29, Oct 2010	Dept. of Design	Dr. Sougata Karmakar & Prof. Debkumar Chakraborty	18

10	Advances in Biofuel Research	One week, 29thNov-3rdDec 2010	Centre for Energy & Dept. of Chemical Engg.	Dr. Kaustubha Mohanty & Dr. Vaibhav V. Goud,	40
11	Analytical and Numerical Solutions of Differential Equations	One week, 6-10, Dec 2010	Dept. of Mathematics	Dr. S. Natesan	26
12	Science Technology and Society	One week, 13-17, Dec 2010	Dept. of HSS	Dr. Sambit Mallik & Dr. Liza Das	21
13	Rotors Supported on Hydrodynamic bearings	One week, 06-10, Dec 2010	Dept. of Mechanical Engg.	Dr. S.K. Kakoty	25
Total No. of Participants					306

Curriculum Development Projects

The following CD Cell projects for financial year 2010-2011 under QIP Scheme were undertaken:

Sl. No.	Name of the Proposer & Dept.	Type of project	Title of the project
1	Dr. Giri Pravat Kumar Dept. of Physics	Lecture Notes preparatory to a Textbook	Lecture notes on Optoelectronic Material
2	Dr. Mrinal Kanti Dutta Dept. of HSS.	Slides Preparation	Preparation of Instruction Materials in Agriculture and Rural Development
3	Dr. Tripathi Nachiketa Dept. of HSS	Slides Preparation	Preparation of Powerpoint slides for the Course " Introduction to Psychology"
4	Prof. Uday Shanker Dixit Dept. of Mechanical Engg.	Preparation of Textbook	Textbook on "Mechanics of Elasto-Plastic Solids"
5	Dr. Sambit Mallick Dept. of HSS	Slides Preparation	Interrogating Modernity

Ph.D. and M. Tech. Admissions:

The following students have been joined to different departments:

A. Final admission to Ph. D. programme for July 2010

Sl. No.	Name	Department	Name of the Parent Institute
1	Vivek Lukose	Dept. of EEE	Jyothi Engg. College , Kerala

Summary Information of The Number of Teachers Admitted to Ph.D Programme Under QIP at Indian Institute of Technology, Guwahati State-wise for the Year 2010-2011

Sl.No.	State	No. Of Candidates Admitted to Ph.D
1.	Kerala	01
	Total:	01

B. Admission to M. Tech. Programme for July 2010

Sl. No.	Name	Department	Name of the Parent Institute
1	Puspanjoli Sonowal	Dept. of Civil Engg.	AEC, Assam
2	Maryom Dabi	Dept. of Mechanical Engg.	NERIST, AP
3	Kaustav Das	Dept. of EEE	Krupaljal Engg. College, Orissa

Year-Wise and Cumulative Data of the Number of M.Techs and Ph.Ds who have joined the QIP Programmes since inception

No. Of Candidates				
Year	Admitted		Completed	
	M.Tech.	Ph.D.	M.Tech.	Ph.D.
2003-2004	--	--	--	--
2004-2005	05	03	--	--
2005-2006	06	07	--	--
2006-2007	12	08	01	--
2007-2008	02	03	05	--
2008-2009	03	05	11	02
2009-2010	05	02	02	--
2010-2011	03	01		
Total:	36	29	19	02

Year-Wise and Cumulative Number of Short Term Courses

Year	No. Of Courses
2003-2004	04
2004-2005	11
2005-2006	12
2006-2007	12
2007-2008	14
2008-2009	13
2009-2010	09
2010-2011	13
Total:	88

State-Wise Distribution of QIP M.Tech and Ph.D Students.

Sl.No.	State	No. Of Candidates Admitted In M.Tech	No. Of Candidates Admitted In Ph.D
1.	Assam	07	13
2.	Andhra Pradesh	--	01
3.	Arunachal Pradesh	1	02
4.	Jharkhand	01	--
5.	Karnataka	01	03
6.	Kerala	01	02
7.	Manipur	01	01
8.	Orissa	16	04
9.	Tamil Nadu	01	01
10.	Uttar Pradesh	03	--
11.	Gujarat	01	01
12.	Sikkim	01	01
13.	Bihar	01	
14.	Rajasthan	01	
	Total:	36	29