

QUALITY IMPROVEMENT PROGRAMME

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

STATUS REPORT
2009-2010



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 2009-2010.

During this year 05 numbers of teachers have joined the M. Tech. programme, and 02 numbers of teachers have joined for the advance Ph. D. of the institute.

Out of fourteen nos. of selected QIP short-term courses only 09 nos. of courses were conducted on different topics during the year .Five courses had to be dropped due to non receipt of Grant in Aid during the 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 2009-2010:

Short Term Courses

List of Short Term Courses done under the financial year 2009-2010 are:

	Topic	Period	Department	Principal Faculty	No. of Participants
1	Advances in Drug Discovery	One week July 20-24, 2009	Dept. of Biotechnology	Dr. V.K. Dubey, Dr. Utpal Bora	21
2	Approaches To The Screening Of Bioactive Molecules From Natural Resources.	One Week July 13-17, 2009	Dept. of Biotechnology	Dr. Rakhi Chaturvedi & Dr. Ranjan Tamuli	23
3	Computational Fluid Dynamics for Chemical and Petroleum Engineers	One week June 8-12, 2009	Dept. of Chemical Engg.	Dr. Anugrah Singh	30
4	Optimization Methods for Water Resources Planning and Management.	One Week June 15-19, 2009	Dept. of Civil Engg.	Dr. Rajib Kr. Bhattacharjya & Dr. A.K Sarma	22
5	Role of Environmental Geotechnology in Waste Management	One week Nov. 2-6, 2009	Dept. of Civil Engg.	Dr. Sreedeeep S.	22
6	VLSI Design, Verification and Test	One Week June 8-12, 2009	Dept. of CSE	Dr. J.K. Deka & Dr. Santosh Biswas	25
7	Mathematical Methods in Electrical Engineering	One week June 2-6, 2009	Dept. of ECE	Dr. A. Rajesh & Dr.P.K. Bora	32

8	Fuel Cell and Hydrogen Technology	One week Sept. 14-18, 2009	Centre for Energy	Dr. Anil Verma	40
9	Mathematical Methods, Modeling and Optimal Control	One week June 2-6, 2009	Dept. of Mathematics	Dr. S.N. Bora & Dr. S.P. Chakrabarty	19
Total No. of Participants					234

Curriculum Development Projects

The following CD Cell projects for financial year 2009-2010 under QIP Scheme were undertaken:

Sl.No.	Name of the Proposer & Dept.	Type of project	Title of the project
1	Dr.Liza Das, Dept. of HSS	Slides	Cultural Theory and Practice
2	Dr. N. Tripathi, Dept. of HSS	Slides	Management of Organizational Behaviour
3	Dr. Pratima Agarwal, Dept. of Physics	Lecture notes	Thin Film Technology
4	Dr. P.K. Bora, Dept. of ECE	Slides	Probability and Random Process
5	Dr.Pinakeswar Mahanta, Dept. of ME	Preparation of Textbook	Concepts of Engineering Thermodynamics
6	Dr. Somanath Majhi, Dept. of ECE	Preparation of Textbook	"Digital Control Systems".
7	Dr. Amit Kumar Mishra, Dept. of ECE	Lecture notes	VLSI-DSP
8	Dr. Akhilesh Kumar Maurya, Dept. of CE	Lecture notes	Traffic Engineering –A manual for data collection and analysis
9	Dr. Rama Gopal Uppaluri Dept. of Chemical Engg.	Lecture notes	Refinery Process Design
10	Dr. Rajiv Tiwari, Dept. of ME	Slides	Analysis & Identification in Rotor Bearing system: Slides in PPT

Ph.D. and M. Tech. Admissions:

The following students have been joined to different departments:

A. Advance admission to Ph. D. programme for July 2009

Sl. No.	Name	Department	Name of the Parent Institute
1	Vivek Lukose	ECE	Jyothi Engg. College, Thrissur
2	Triptimoni Borah	Civil	Jorhat Engg. College, Assam

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 2009-2010

Sl.No.	State	No. Of Candidates Admitted to Ph.D
1.	Kerala	01
2.	Assam	01
	Total:	02

B. Admission to M. Tech. Programme for July 2009

Sl. No.	Name	Department	Name of the Parent Institute
1	Nakum Suresh N.	ECE	Govt. Engg., Patan, College, Gujarat
2	Jayanta Kr. Rout	ECE	ITER, Bhubaneswar
3	Madhusudhan Mishra	ECE	NERIST, Arunachal Pradesh
4	Mithun Kr. Kaur	ECE	Balasore College of Engg. And Tech, Orissa
5	Rajesh Kr. Ojha	ME	CET, Bikaner

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

Year	No. Of Candidates			
	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	--
Total:	33	28	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
Total:	75

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	06	13
2.	Andhra Pradesh	--	01
3.	Arunachal Pradesh	--	02
4.	Jharkhand	01	--
5.	Karnataka	01	03
6.	Kerala	01	01
7.	Manipur	01	01
8.	Orissa	15	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:	33	28