

QUALITY IMPROVEMENT PROGRAMME

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

STATUS REPORT
2008-2009



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 2008-2009.

During this year 03 numbers of teachers have joined the M. Tech. programme, and 05 numbers of teachers have joined for the advance Ph. D. of the institute.

Fourteen nos. of QIP short-term courses were conducted during the year on different topics.

From the last year IIT Guwahati has been given principal coordinatorship for the duration of two years. The major activities of QIP cell for this year was to coordinate the all over India QIP admission process for the academic year July 2009.

The overall guidance of the Director IIT Guwahati 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.

(Dr. R. Tiwari)

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 a base documents by many institutions.

The following activities took place in the financial year 2008-2009:

Short Term Courses

List of Short Term Courses done under the financial year 2008-2009 are

	Topic	Period	Department	Principal Faculty
1	Hydroinformatics for Surface and Subsurface Water Resources	June 09-13, 2008	Civil Engineering	Dr. S.A. Kartha Dr. G. Barua Dr. S. Dutta kartha@iitg.ernet.in g_barua@iitg.ernet.in subashisa@iitg.ernet.in
2	Advances in Concrete and Masonary and Mechanics	June 16-20, 2008	Civil Engineering	Dr. Bulu Pradhan Dr. Hemant B Kaushik Dr. K.D. Singh bulu@iitg.ernet.in hemantbk@iitg.ernet.in darun@iitg.ernet.in
3	Nanomaterials for Nanoengineering	June 23-27, 2008	Physics	Dr.P.K.Giri giri@iitg.ernet.in
4	Product Innovation	July 7-11, 2008	Design	Prof. Ravi Mokashi Punekar mokashi@iitg.ernet.in
5	Surfactants and Interfacial Phenomena in Process Technology	July 14-18, 2008	Chemical Engineering	Dr.Pallab.Ghosh Dr.M.K.Purkait pallabg@iitg.ernet.in mihir@iitg.ernet.in
6	Hydrogen Fuel and its Applications	Sept.15-19, 2008	Centre for Energy	Dr. P. Mathukumar Dr. P. Mahanta pmkumar@iitg.ernet.in pinak@iitg.ernet.in
7	Advanced Wireless Communication	Sept. 22-26, 2008	Electronics & Communication Engineering	Dr.AbhijitMitra Dr.Ratnajit Bhattacharjee a.mitra@iitg.ernet.in ratnajit@iitg.ernet.in
8	Computer Aided Traffic Engineering Analysis and Design	Nov 24-28, 2008	Civil Engineering	Dr. Akhilesh K. Maurya Dr.Mallikarjuna.C. Dr.A.Verma maurya@iitg.ernet.in c.mallikarjuna@iitg.ernet.in ashishv@iitg.ernet.in
9	Nonlinear Phenomena in Physics and engineering	Dec 1-5, 2008	Physics	Dr.G.S.Setlur Dr.A.K.Sarma gsetlur@iitg.ernet.in aksarma@iitg.ernet.in
10	Aerospace Propulsion for Beginners	Dec 08 -12, 2008	Mechanical Engineering	Dr.U.K.Saha Dr.N.Sahoo

				saha@iitg.ernet.in shock@iitg.ernet.in
11	Recent advances in fluorescence and other spectroscopic techniques	Dec 08-12, 2008	Chemistry	Dr.G.Krishnamoorthy gkrishna@iitg.ernet.in
12	Molecular Simulations in Chemical Engineering	Dec 15-19, 2008	Chemical Engineering	Dr.Tamal Banerjee Dr.Sasidhar Gumma tamalb@iitg.ernet.in s.gumma@iitg.ernet.in
13	Theory & Practice of Rotor Dynamics by FEM and Signal Processing	Dec 15-19, 2008	Mechanical Engineering	Prof.R.Tiwari rtiwari@iitg.ernet.in
14	New Media & Digital Design for effective communication	March 16-20, 2009	Design	Dr. Utpal Barua utpalb@iitg.ernet.in

Curriculum Development Projects

The following CD Cell projects for financial year 2008-2009 under QIP Scheme were undertaken:

Sl.No.	Name of the Proposer & Dept.	Type of project	Title of the project
1	Dr. U.K. Saha, Dept. of ME	Preparation of Textbook	Gas Turbines and Jet Propulsion (Tentative)
2	Dr. Seenipandian Ravi, Dept. of Physics	Monograph	Monograph on Magnetism and superconductivity
3	Dr. Deepthi Shanker, Dept. of HSS	Lecture notes	Sociology of Cyberspace
4	Dr. M.K. Dutta, Dept. of HSS	Slides	Preparation of instructional materials (Power point presentation) in Environmental Economics
5	Dr. Arupjyoti Saikia, Dept. of HSS	Preparation of Textbook and Monograph	A History of Assam (1800-1985)
6	Dr. Sharad Gokhale, Dept. of CE	Lab manual	Air Quality Monitoring: Sampling & Analysis
7	Dr. Chandan Mahanta, Dept. of CE	Lab manual	Instructional Resource on Water Quality Engineering & Science
8	Dr. Ravi Mokashi Puneekar, Dept. of Design	Lecture notes preparatory to a textbook	Industrial Design-concepts and concern

Book Published During 2008-2009

Sl.No.	Book Name	Writer Name	Publisher
1	Finite Element Methods For Engineers	Prof. U.S.Dixit	Cengage Learning
2	Advanced Control Theory	Prof. Somanath Majhi	Cengage Learning

Ph.D. and M. Tech. Admissions:

The following students have been joined to different departments:

A. Advance admission to Ph. D. programme for July 2008

Sl. No.	Name	Department	Name of the Parent Institute
1	Shrinivasa Naika C.L	CSE	Dept. of CSE, University B.D.T College of Engineering, Devanagere, Karnataka-577004
2	Ashok Kumar A.R	CSE	Dept. of CSE, Babuji Institute of Engg. & Tech., Devanagere, Karnataka-577004
3	Ramesh Chandra Mishra	ECE	Balasore College of Engg. & Tech., At/PO-sergarh, Dist- Balasore, Orissa-756060
4	Siba Shankar Mohapatra	Energy	Dept. of ME, ITER, Jagmohan Nagar, Jagamara, Bhubaneswar Orissa-751030
5	Biswajit Deb	Mathematics	Dept. of Mathematics, SMIT Majitar, Rangpo, East Sikkim, Sikkim-737172

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 2008-2009

Sl.No.	State	No. Of Candidates Admitted to Ph.D
1.	Orissa	02
2.	Karnataka	02
3.	Sikkim	01
	Total:	05

B. Admission to M. Tech. Programme for July 2008

Sl. No.	Name	Department	Name of the Parent Institute
1	Mrs. Bindu Agarwala	CSE	Sikkim Manipal Inst. Of Tech., Majitar, Rangpo, Sikkim- 737132
2	Subhransu Sekhar Parhi	ECE	Balasore College of Engineering and Technology, Orissa
3	Subhashree Das	ECE	Balasore College of Engineering and Technology, Orissa

Summary Information of The Number of Teachers Admitted to M.Tech Programme Under QIP at Indian Institute of Technology, Guwahati State-wise for the Year 2008-2009

Sl.no.	State	No. Of Candidates Admitted In M.Tech
1.	Sikkim	01
2	Orissa	02
Total:		03

During the financial year 2008-09 admissions activities for the PhD and M.Tech. under QIP scheme took place and results were declared in the month of April so it has not been reported in the present report.

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	2
Total:	28	26	11	

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	14
Total:	67

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

Sno.	State	No. Of Candidates Admitted In M.Tech	No. Of Candidates Admitted In Ph.D
1.	Assam	06	12
2.	Andhra Pradesh	--	01
3.	Arunachal Pradesh	--	02
4.	Jharkhand	01	--
5.	Karnataka	01	03
6.	Kerala	01	--
7.	Manipur	01	01
8.	Orissa	13	04
9.	Tamilnadu	01	01
10.	Uttar Pradesh	03	--
11.	Gujarat	--	01
12.	Sikkim	01	01
	Total:	28	26

National QIP Coordination Committee (NQCC) meeting

IIT Guwahati is the coordinating Institute for QIP activities including MTech/PhD admissions for the academic year July 2009. IIT Guwahati was involved in processing application and final selection nation wide for M.Tech/ PhD admission of the current year. The 136th NQCC meeting was held at IIT Guwahati on 6th April 2009 for the finalization of the results, in which all the QIP coordinators of IITs and IISc were present.