DA-IICT
Academic Programs

by
Sanjay Chaudhary
Dean (Academic Programs)
Academics at DA-IICT

• It is a research-led institution
  – All the PG programs have a significant research and/or project component
  – The faculty have doctorate qualifications and most are actively involved in research
  – This research attitude is reflected in their teaching
• Well defined program structure
• Teaching methodology and way of expression
• PG students should be curious to explore and innovate
• PG students should develop ability to discover and improve based on academic environment, courses, experiments, projects, discussions, and self-learning
PhD Program

• Commenced during 2002
• Specific areas of PhD
  – Electronics, Communication Engineering, Computer Science / Information Technology, ICT, ICT in Agricultural and Rural Development, Humanities, Arts and Social Sciences, Medical Electronics, Bio-medical
• We conduct PhD selection process twice every year: June/July and December
• Out of 62 PhD students, seven have completed and three will complete this year
• Students of DA-IICT - BTech, MTech, MSc (ICTARD) and MDes students have joined PhD program at DA-IICT
PhD Program (cont.)

• We insist on course work to strengthen the foundation
• PhD Comprehensive Exam
  – After completion of course credits
  – To evaluate preparedness of a candidate for research aptitude as well as overall knowledge in the area and not only a very specific research topic
  – Many PhD students are not found good in other related areas and face issues while working in academic and research organizations
• Research Progress Seminars
• Financial Assistance for full time PhD students
  – Rs. 15,000 to Rs. 25,000 per month
• TCS Research Fellowship
• Residential PhD helps to generate quality research work and publication.
  – Advisable to spend at least first three years as a full time residential PhD student
• We offer Teaching Assistantship to the students of PhD and MTech programs
# Profile of PhD students

<table>
<thead>
<tr>
<th>Name</th>
<th>Area of PhD</th>
<th>Working at</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zakir Laliwala</td>
<td>Service Oriented Computing</td>
<td>IBM and his own company</td>
</tr>
<tr>
<td>Vikram Sorathia</td>
<td>Distributed Computing</td>
<td>Post doc: Twente University and University of Southern California</td>
</tr>
<tr>
<td>Uttam Bombale</td>
<td>Radio Frequency</td>
<td>Principal, Engg. College, MH</td>
</tr>
<tr>
<td>Dilip Kumar G.</td>
<td>ICTARD</td>
<td>Head, Knowledge Management Group, ICRISAT, AP</td>
</tr>
<tr>
<td>Sunil Jardosh</td>
<td>Sensor Networks</td>
<td>Asst. Prof., Shiv Nadar University</td>
</tr>
<tr>
<td>Ratnik Gandhi</td>
<td>Mathematics and TCS</td>
<td>Post doc, TIFR, Mumbai</td>
</tr>
</tbody>
</table>
M.Tech. (ICT)

– Prepare students for specialized research and academic positions
– Course curriculum was revised in the year 2008
– Four specializations
  • Communication Systems
  • Computer Networks
  • Machine Intelligence
  • VLSI and Embedded Systems
– Possibility to migrate to PhD after first year
– MTech Thesis
  • One year research based thesis
  • Three rounds of formal evaluation
M.Sc.  
(ICT in Agriculture & Rural Development)

- To prepare graduates who will use ICT as means for developing innovative solutions to meet the challenges
- ICT as an interface for ARD
- Curriculum was revised in the year 2007 and 2009
- Courses / Dimensions
  - Development Theory and Practices, Rural Finance
  - Computer Basics, Databases, ICT Infrastructure: Implementation
  - Modeling and Simulation: Info System & Bio-Economic System
  - Quantitative Analysis, RS and GIS, Research Methodology
  - System Theory, MIS, Production & Operation Management
  - Electives: eGoverance, Precision Farming, Systems and Policy
  - Summer Internship
  - One semester full time project work with formal monitoring
M. Des. (Communication Design)

- To prepare design professionals:
  - Content and
  - Technology
- Revised curriculum is implemented from August 2009
- Courses / Dimensions
  - Writing and Presentation
  - Approaches to culture and communication
  - Fundamentals of design
  - Interaction design
  - Animation
  - Games, Simulation and Modeling
  - Thematic Seminars, Research Applications
  - Ethnography and Applications
  - Introduction to Narratology
  - Web Design
  - Summer Internship
  - One semester full time project work with formal monitoring
M.Sc. (IT)

• To develop software/IT professionals for industry
• Curriculum was revised in the year 2006
• Current curriculum revision under progress
• Courses / Dimensions
  – Computer Programming: Database programming, Web, Data Mining, Information Security
  – Algorithms and Data Structures
  – Computer Organization, Computer Network
  – Software Engineering, Object-Oriented Analysis & Design
  – Mathematics
  – Network Economics, Principles of Management
  – Summer Internship
  – One semester full time project work with formal monitoring
Institutional Collaboration

• Network of Engineering Institutions (NEI)
  – It is a cooperative endeavor, initiated in January 2011 to promote the quality of PhD research
  – To provide quality courses through workshops conducted and evaluated by experts

• MoUs:
  – DA-IICT and IIT Gandhinagar
  – Space Applications Center: Sponsored PhD students,
  – ISEP (FR), WSU (USA), Uni of Regina,
  – ICRISAT

• Tata Consultancy Services (TCS): PhD fellowships
• Ericsson India: High-end industrial training
PG Programs of DA-IICT

• It is a credit-based system
• Students have to register for the courses they wish to take every semester
• Electives: Flexibility across the programs
<table>
<thead>
<tr>
<th>Course</th>
<th>L</th>
<th>T</th>
<th>P</th>
<th>C</th>
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<tr>
<td><strong>CT501</strong></td>
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<td><strong>EL521</strong></td>
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<td>VLSI Design Lab</td>
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<td><strong>HM654</strong></td>
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<td>Development Theory and Practices</td>
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<tr>
<td><strong>IT522</strong></td>
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<tr>
<td>Pattern Recognition</td>
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<tr>
<td><strong>PC612</strong></td>
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<td>0</td>
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<tr>
<td>Communication Skills*</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SC611</strong></td>
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<td>1</td>
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<tr>
<td>Mathematics</td>
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## Grading System

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Corresponding Points</th>
<th>Explanation</th>
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<td>AA</td>
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<td>AB</td>
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<tr>
<td>BB</td>
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<td>F</td>
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<td>Fail</td>
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<tr>
<td>I</td>
<td>-</td>
<td>Incomplete</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>Passed</td>
</tr>
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</table>
Continuous Evaluation

Grade for a Course can be based on any of the following:

– Lecture Attendance

– Tutorial Attendance and/or Submissions

– Quizzes (Informed or Surprise)

– H/W Assignments

– Laboratory Attendance and/or Submissions

– Viva and/or Presentations

– Projects

– Classroom Participation

– In-sem Examinations (one or two)

– End-sem Examination

• Choice and Weightage is the instructor’s prerogative
With Best wishes
## Placement History – Past Recruiters (1/2)

<table>
<thead>
<tr>
<th>Accenture</th>
<th>Airtel</th>
<th>Airvana</th>
<th>Anindus</th>
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<tbody>
<tr>
<td>Bitmapper</td>
<td>Deloitte Consulting</td>
<td>DirectI</td>
<td>Evosys</td>
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<tr>
<td>Fiserv</td>
<td>Future First</td>
<td>HP</td>
<td>Infosys</td>
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<tr>
<td>JP Morgan Chase</td>
<td>Kuliza Technologies</td>
<td>Maxim</td>
<td>MindTree Consulting</td>
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<tr>
<td>Mu-Sigma</td>
<td>Open Silicon</td>
<td>Patni Computers</td>
<td>Persistent</td>
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<tr>
<td>Pramati</td>
<td>Reliance Power</td>
<td>RoboSoft</td>
<td>SABA Software</td>
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<td>Sankalp</td>
<td>Sapient</td>
<td>Stokes</td>
<td>TCS</td>
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<td>Semiconductors</td>
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<td>Verse Innovations</td>
<td>Wipro Technologies</td>
<td>ZS Associates</td>
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<tr>
<td>Tata Technology</td>
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</tbody>
</table>
Placement History – No. of Companies

Year

- 2008-09: 40 Companies
- 2009-10: 54 Companies
- 2010-11: 64 Companies
Placement History – Average Annual Package (Rupees)

<table>
<thead>
<tr>
<th>Year</th>
<th>Package (Lakhs Per Annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-09</td>
<td>3.44</td>
</tr>
<tr>
<td>2009-10</td>
<td>3.61</td>
</tr>
<tr>
<td>2010-11</td>
<td>3.98</td>
</tr>
</tbody>
</table>
Placement History – Job Offers

![Bar chart showing job offers and batch sizes for 2008-2011]
PLACEMENT STATISTICS 2011-12

- B-Tech: 92 (A- Category) - 16 (B-Category) - 14 (Unplaced) - 9 (Not Interested) - 11 (Not Eligible (CPI < 5))
- M-Tech: 73 (A- Category) - 16 (B-Category) - 11 (Unplaced) - 0 (Not Interested) - 0 (Not Eligible (CPI < 5))
- Msc-IT: 23 (A- Category) - 16 (B-Category) - 18 (Unplaced) - 0 (Not Interested) - 0 (Not Eligible (CPI < 5))
- Msc-ICT ARD: 12 (A- Category) - 12 (B-Category) - 1 (Unplaced) - 0 (Not Interested) - 0 (Not Eligible (CPI < 5))
Total number of students placed in the 49 companies that have visited the campus so far (as of 31st Dec 2011) is 215. The number of eligible & interested students up for placements is 236, i.e. around 81% placements have been achieved so far this year. The average package so far is around ₹ 4.44 lakhs per annum and the highest package is ₹ 16 lakhs per annum offered by Microsoft.
Thank You