

**CIIR ACTIVITIES**  
**December 7, 2004 – March 6, 2005**

**Overall Objective:**

Building on the momentum generated by the first I\*I course offering at IIT Bombay, namely, PG course *HS 613 Information Integrity* in the Autumn Semester 2004-05, CIIR during the current period under consideration aimed at activities further widening I\*I education and research community base.

**Overview of Main CIIR Activities:** From December 7, 2004 – March 6, 2005, CIIR pursued research & education activities of: (1) Paper presentation at International Conference; (2) Networking with institutions to initiate I\*I research and education programs; (3) I\*I Course Offering under Continuing Education Program activity at Sinhadgad Technical Society, Pune; (4) Faculty Seminar presentation; (5) Delivering Invited Lecture at MBA Program; (6) Guiding doctoral research in I\*I and Preparation of Research papers for National Conference; (7) Conducting intensive I\*I Research interactions for training of prospective I\*I researchers; (8) Planning for I\*I Paper Session at the Proposed National Seminar; (9) MAL 736 Information Integrity Course at IIT Delhi; (10) Work on a comprehensive I\*I Research Paper “Systems Engineering of Information Integrity”; (11) Editing of CIIR’s Research Publications; and (12) Launching of I\*I Research Web Site at CIIR

These activities are briefly described here.

**1. Paper presentation at International Conference**

Prof. Milind S. Mali, Assistant Professor, Mechanical Engineering Department, Smt. Kashibai Navale College of Engineering (For Girls), Sinhadgad Technical Education Society, Vadgaon, Pune presented paper entitled “*Designing Systems for Changing and Complex Environment - An Information Integrity Approach*” at SICPRO ’05 International Conference of Institute of Control Sciences, Russian Academy of Sciences, Moscow held from 25-28 January 2005.

**2. Networking with institutions to initiate I\*I research and education programs**

CIIR is networking with institutions from Delhi, Pune and from Bombay to develop programs and courses in I\*I. Within this framework, during the period under consideration, CIIR had following notable meetings.

- (a) Meetings with Professor A. V. Deshpande, Principal, Smt. Kashibai Navale College of Engineering, Prof. Juda, Director, Sinhadgad Institute of Management and other faculty members of Sinhadgad Technical and Management institutes, Pune for developing Continuing Education Program in I\*I at Sinhadgad Technical Institutes.
- (b) Meetings/interactions with Prof. K Narayanan, Economics Dept., Humanities & Social Studies, IIT Bombay, Mr. A. K. Hirve, Vice-Principal, RBI College of Agricultural Banking, Pune and Ms. Jivani, GM, RBI College of Agricultural Banking, RBI, Pune to study feasibility of Continuing Education Workshop in I\*I for professionals from banking sector.

**3. I\*I Course Offering under Continuing Education Program activity at Sinhadgad Technical Society, Pune**

From January 4-14, 2005, Prof. Vijay Mandke offered I\*I course at Sinhadgad Technical Society, Pune. The course was under the Continuing Education Program Activity for the faculty of the Society’s engineering, computer and management programs. Objectives of the I\*I course offering are: (a) Faculty development for research in I\*I, (b) Faculty development for I\*I education, (c) Development of I\*I research desk at participating institutes, and (d) Planning for I\*I Seminar at National level.

First cycle of lectures was conducted from January 4-14, 2005.

#### **4. Faculty Seminar presentation**

Prof. Vijay Mandke presented Faculty Seminar entitled “Information Integrity: Research and Education Issues” at Cummins College of Engineering, Pune on 13 December 2004.

#### **5. Delivering Invited Lecture at MBA Program**

Prof. Vijay Mandke delivered invited lecture “Information Integrity Imperative for Strategic Information Systems” to the students of “Strategic Information Systems” course under the MBA program of Institute of Management Technology, Ghaziabad, Delhi on March 3, 2005.

#### **6. Doctoral research in I\*I and Preparation of Research papers for National Conference**

From July 2003, Ms. Reema Khurana, Computer Science Faculty of Institute of Management & Technology (IMT), Ghaziabad, Delhi is registered at S.N.D.T. University, Mumbai for her Doctoral work in the topic “Achieving I\*I for Open System Data Bases”. Dr. Ramesh, Professor of Computer Science & Engineering, IIT Bombay and Professor Vijay Mandke are her joint guides.

- **Guiding Ph. D. research**

Prof. Mandke is actively engaged in guiding Ms. Khurana in her doctoral work progress.

**Note:** This is a continuing activity.

- From 13 February 2005 Vijay is visiting Delhi and this is helping him to have intense research discussions with Reema.

- **Preparation of I\*I Research Papers for the proposed National Conference at IMT, Ghaziabad**

Further, currently Ms. Khurana is working on two papers for the submission at the Research Conference planned at IMT, Ghaziabad from 9-10 April, 2005.

- Paper 1: Defining Information Integrity in Information Base Management System in the presence of uncertainty
- Paper 2: Achieving integrity in schema design in the presence of complex and changing system environment

#### **7. Conducting Intensive I\*I Research Interactions for training of prospective I\*I researchers**

During the period 24 January 2005 – 10 March 2005, one to one I\*I research interactions were held at CIIR Pune Center with the following faculty members from institutes of Sinhadgad Technical Society, Pune and from Dept. of Computer Science & Engineering, S. N. D. T. University, Mumbai:

- (i) Mr. Ramachandra Pawar, MCA Program Faculty, Sinhadgad Technical Society, Pune
- (ii) Mr. Tushar Dagade, MBA Program Faculty, Sinhadgad Institute of Management (SIOM), Sinhadgad Technical Society, Pune
- (iii) Mr. Shailendra Kale, MBA Program Faculty, Sinhadgad Institute of Management (SIOM), Sinhadgad Technical Society, Pune
- (iv) Mr. Ashok Tiwari, MBA Program Faculty, Sinhadgad Institute of Management (SIOM), Sinhadgad Technical Society, Pune
- (v) Mr. Simon Selvan, Faculty, Computer Science and Engineering Department, S. N. D. T. University, Mumbai

#### **8. Planning for I\*I Paper Session at the Proposed National Seminar**

Institute of Management Technology (IMT), Ghaziabad, Delhi is organizing National Conference on Business Information Management from 9-10 April, 2005. CIIR is in interaction with the Conference Organizers to plan Information Integrity Research Paper Session at the convention. It is proposed that the research members with whom CIIR is in interaction may present I\*I papers at the I\*I session.

**9. MAL 736 Information Integrity Course at IIT Delhi**

IIT Delhi under its Post (10+2) Five Year Integrated Master of Technology (Integrated M. Tech.) Program leading to M. Tech. in Mathematics and Computing has approved *Course MAL 736 Information Integrity* under the Institute's integrated elective course category. Integrated Core and Integrated Electives of the Institute have components similar to those of the Institute's undergraduate core and undergraduate electives, respectively.

Thus the *Course MAL 736* comes under IIT Delhi's Courses of Study for the Institute's Under-Graduate programs.

As approved by the Institute, IIT Delhi document "Courses of Study 2004-2005 for UG programs" lists the course with following course description:

***MAL 736 Information Integrity***

4 Credits (3-1-0)

Information Integrity, concepts and definitions; direct integrity and its mechanisms; modeling information error; system's view of Information Integrity; open system view of business enterprise system; business process IS view as integral to close loop information and control system and as information origination process; information envelope, uncertainties therein, error implications and loss of Information Integrity; inadequacy of existing integrity mechanisms; criticality of Information Integrity for efficient and economic processing of information in IS view; Usefulness-Usability-Integrity paradigm; cost benefit analysis of Information integrity; mathematical equations for information value and for improvement of Information Integrity; design basis for Information Integrity analyzer and controller.

**Ref:** IIT Delhi document "Courses of Study 2004-2005 for UG programs", Page No. 110.

**10. Work on a comprehensive I\*I Research Paper**

Currently Prof. Mandke is also working on a comprehensive research paper entitled "Systems Engineering of Information Integrity".

**11. Editing of CIIR's Research Publications**

CIIR is working on the continuing task of editing its research publications.

**12. Launching of I\*I Research Web Site at CIIR**

Work for development of I\*I Research Web Site is almost complete. The site address is: [www.centerforinformationintegrityresearch.org](http://www.centerforinformationintegrityresearch.org). CIIR will be happy to receive suggestions. Site development is an ongoing process. Thus it is proposed to launch the site and open it to all in the near future.