



Local language enablement of ICT through Internationalization of W₃C standards Thru CSI research & education

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CSI Overview

- Established in 1965
- Head office in Mumbai
- Education Directorate at Chennai
- Run by elected professionals
- 8 Regions
- 70 Chapters
- 381 Student branches
- Almost 70000 members



Mission


- Facilitate research, knowledge sharing, learning and career enhancement for all categories of CS/IT Professionals
- Inspiring and nurturing new entrants into the industry and helping them to integrate into the IT community
- Empower Users in Industry and Government , with and without IT background, by providing forum for continuing knowledge, imparting of skills and participation in activities of CS/IT community in academia, research and industry

Purpose of CSI (partial list)

- Scientific and educational, directed towards advancing all aspects of the theory, design and practice of Information Technology, including Computer Science, Computer Engineering and Technology and related Arts and Sciences.
- **Promote interchange of information, in these disciplines and sub-disciplines, amongst the specialists and between the specialists and the public;**
- **Foster a sense of partnership amongst the professionals engaged in these fields;**
- **Promote application of these technologies to improve the quality of life, for the benefit of India and for the benefit of humanity at large**
- **Enable high quality educational and learning opportunities to be accessible on a life long basis to professionals, including those working overseas and those involved in export oriented activities;**
- **Provide high quality technical, educational, research and professional activities, services and standards to serve the members, the professionals and the public;**



How to achieve

- **The Society shall achieve these objectives through the formation of Regions, Chapters, Student Branches, Divisions and Special Interest Groups, holding of lectures, educational and instructional programs, discussions, meetings and conferences for presenting and discussing professional papers, publication of journals, periodicals and works of science, technology, literature and art pertaining thereto, giving of awards and prizes to recognize individuals and organizations for achievements of exceptional merit and any other activities necessary, suitable and proper for the fulfillment of these objectives.**
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Key Building blocks of CSI

- Chapters
- Divisions
- Special Interest Groups
- Technical & business Conferences, Seminars
- Outreach and Industry academia interaction programs
- Various education programs, workshops, certification programs
- Promotion of Research thru Conferences, Call for research papers, funding of Research Projects
- Publications : Newsletter, Research Journal, student newsletter
- Knowledge Management portal
- Recognitions and Awards
- Affiliations with IEEE, ACS, BCS...
- Member of IFIP, SEARCC
- MOUs with CDAC, Microsoft, PMI

A glimpse of activities

■ National Student Convention	19
■ National/ international conferences	80
■ Certifications/ Examinations	9
■ Workshops	200
■ Guest lectures	50
■ Quizes	3
■ No. of locations at which these Events done	125

Impact of CSI activities

- Over 1 Lakhs IT professionals and Students get benefitted every year thro' various engagements
- Leadership role in Research and Technical Conferences
- FOSTERING INDUSTRY ACADEMIA INTERACTIONS AND LINKS
- WIDE SPREAD PROMOTION OF NEW KNOWLEDGE AND SKILL DEVELOPMENTS
- Help in developing leaders of tomorrow in ICT thro' High Quality Technical programs and programs for upgrading skills as CIOs
- Provide opportunities to develop capabilities as speakers, writers, organizers and entrepreneurs
- Bring Knowledge sharing across cross-sections of professionals
- Created strong bonds of relationship between industry and academia

Current Thrust areas of CSI

- Research THRU CONFERENCES, CALL FOR PAPERS AND PROJECTS
- Publications and Outreach
- SIGs
- Education / HR, Skill Upgradation
- International Activities (IFIP, SEARCC)
- Security : Awareness, Certification
- e-Governance
- FOSS, Inclusion

Affiliations & MOUs

- IFIP - Technical Committee Representation
- ICC - Technical Committee Representation
- IEEE - Exchange of Members
- Founder member of SEARCC
- MOU with British Computer Society, Australia, Sri Lanka, Singapore
- CICC - Training in Japan
- MOUs : CDAC, PMI, MICROSOFT...

Awards

- CSI Lifetime achievement award
- CSI Excellence Award for BFSI, Product Manufacturing, Service Industry, Non Profit Organization and Quality Assurance Sector
- CSI Nihilent e-Governance Awards
- Young IT Professional
- Fellowships
- Honorary Fellowships
- Chapter Patrons
- Student Branch Awards

Barriers & Opportunities in Inclusive GROWTH OF ICT

- Lack of availability of ICT solutions/ services in multilingual
- Literacy
- Adoption of Technology & STANDARDS
- Affordability & Socio economic
- Ease and comfort of use
- Availability
- Accessibility
- Infrastructure
- Diversity and multicity
- Telecom & infrastructure

BARRIERS

- User interfaces in local Languages
- Maturity of technology
- Participation of industry
- Motivation & legal framework
- Lack of standards by propriety software
- Skill for implementation
- Inadequacy of tools
- Awareness

OPPORTUNITY LOSS : BILLIONS OF RUPEES

THANKS TO W3C STANDARDS : TDIL & CDAC

- W₃ Consortium aims at:
Web for All [no discrimination based on hardware, software, network infrastructure, native language, culture, geographical location, or physical or mental ability]
WELL TESTED AND PROVEN
INTERNATIONAL STANDARDS : UNICODE
- W₃C GUIDELINES FOR NLP
- W₃C GUIDELINES & STANDARDS FOR ACCESSIBILITY STANDARDS

W3c seven focus Areas

- 1. Universal Access
- 2. Semantic Web
- 3. Trust
- 4. Interoperability
- 5. Evolvability
- 6. Decentralization
- 7. Cooler Multimedia!

CSI's good infrastructure for education
can be leveraged

Industry PREPAREDNESS

- THANKS TO TDIL FOR MAKING AVAILABLE TOOLS, LIBRARIES –UNICODE
- MANY AWARENESS PROGRAMS AND FREE NLP SOFTWARE
- THANKS TO CDAC FOR RESEARCH AND TRAINING
- Limitations : TRANSLATION NOT AVAILABLE FOR FRONT END software LIKE SQL, SPSS, IN ABSENCE OF WHICH VALUE OF NEW DEVELOPMENTS OF ICT FOR MASSES WILL NOT BE UTILIZED

Industry commitment ...

- THANKS TO INDIVIDUAL PLAYERS LIKE MICROSOFT & IBM FOR MAKING AVAILABLE SELECTIVELY INDIAN LANGUAGE TRANSLATION & TOOLS FOR THEIR OFFICE SOFTWARE
- STILL FACILITY HARDLY AVAILABLE FOR PACKAGES, PLATFORMS OF SQL / SPS ETC. THERE IS NEED FOR ALWAYS NLP FOR FRONT SCREENS, ADDITIONAL COST AND CONTINUOUS MAINTENANCE



Road ahead...

- A GREAT OPPORTUNITY FOR STEEP GROWTH OF ICT FOR RURAL IS WAITING
- Lack of localization of technology & standardization



HOW CSI CAN HELP ?

CSI LARGE MEMBER BASE CAN BE CHANNELIZED

- IT professionals and IT managers, CIOs, CXOs working in corporate, government organizations, IT companies, ITES/ BPOs
- Academicians and Research Scientists
- Entrepreneurs from ICT domain
- Corporate & Government organizations
- Students

Total count as on today is over 70 000

CSI Research and Development ENDEAVOURS

- PROMOTION OF RESEARCH THRU CSI Special Interest Group (SIG)
- CSI Divisional research projects.
- Financial support for minor research projects
- Opportunity to send research papers and other technical papers, articles for publication in CSI journal and publications of other sister societies

Special Interest Groups (SIGs)

- Originally conceived in 2006, after CSI constitutional amendments, for the following reasons :
 - Depth of technology/ discipline focus
 - Promoting research and call for research papers
 - Conducting various activities for promoting a particular discipline
 - Collaboration with other disciplines
- 23 SIGs already formed and 6 in pipeline.

SIGs CAN BE PARTNER FOR IMPLEMENTATION OF W3C STANDARDS

- E- Governance
- AI
- Free and Open Source Software
- Distributed Systems
- Software Engineering
- Data Engineering
- Human Computing
- Information Security
- Social Networking
- IT for Social Science Research
- High Performance Cluster/ Grid Computing

SIGs are (contd.) :

- Business Value of Information Technology (BVIT)
- Green IT
- Bio Informatics
- Software Quality Management
- Cyber Forensics
- Knowledge Management
- Intelligent Systems and Robotics
- System Reliability
- e- Agriculture
- Soft Skills Development
- Innovation and Entrepreneurship in Information and Communication Technology

A few major activities of SIGs

- **eGov-** Association with Government authorities in various states (Gujarat, Madhya Pradesh, Andhra Pradesh and others), publications (eGovernance Case Studies), awards programs, collaboration with international universities
- **Human Computing-** Exchange program (London Academy of Education and Research), collaboration meeting (University of Johannesburg), research and Training programs
- **Social Networking-** Workshops (Harnessing the power of social networking sites) and interaction with CEOs of other social networking sites
- **ITSSR-** Free lecture (Multi-theoretical multilevel models to understand and enable networks), Conference (role of ICT in Social Empowerment) and publications (Role of ICT in NREGA)

About CSI-SIG, eGOV

- Formed in 2007 at Hyderabad
- Will promote annual CSI Nihilent e-Governance Awards
- Regular Knowledge Sharing Summits
- Research Projects on e-Governance domain
- Collaboration with IIT Delhi for International Conference on e-Governance (ICEG) series
- Education Courses at IIIT-H & TAPMI, Manipal
- Publications
 - Yearly Compendium of eGov Initiatives
 - Web Portal (www.csi-sigegov.org)
 - Regular Events with Chapters

Mega Events Planned in Ahmedabad on the occasion of Golden Jubilee of Government of Gujarat for 2011

RESEARCH PUBLICATIONS

- Enabling Change: Selective e-Governance Initiatives in India, Piyush Gupta, R K Bagga & Alluri Sridevi, ICFAI Press, Nov 2010
- Fostering e-Governance: Selected Compendium of Indian Initiatives – Edited by Piyush Gupta, R K Bagga and A Sridevi. ICFAI Press 2009.
- Transforming Government: e-Governance Initiatives in India – Edited by Dr R K Bagga and Piyush Gupta, ICFAI Press 2008.
- Compendium of e-Governance Initiatives in India by Dr.R.K.Bagga & Piyush Gupta, UNIVERSITY PRESS, 2007.
- Critical Issues on e-Governance Compiled by Dr.Sita Vanka, K.Sriram & Dr.Ashok Agarwal ICEG-Proceeding, 2006 .
- e-Governance Case Studies Edited by Dr Ashok Agarwal. UNIVERSITY PRESS, 2005.



SIG, FOSS

- Promote the awareness and use of FOSS in all domains, but especially in social , educational and governance applications; local, national and international meetings, seminars and conferences
- Promote development of FOSS-based software for specific applications where there are gaps; organize funding for such pilots from appropriate sources
- Support FOSS-related student activities, including student projects, conventions and contests
- Help share FOSS-related experience within the country, inter alia, by creating, maintaining and disseminating a database of FOSS applications for different purposes
- Maintain a website and mailing list for dissemination of SIG activities as well as for internal debate
- Linking up with international initiatives in FOSS
- Recognizing successful FOSS initiatives in India, through, inter alia, awards and other recognitions
- Secure visibility for CSI in the increasingly prominent FOSS community and thus gain membership
- Report periodically to the ExeCom on the status and activities of the SIG

Activities of other SIGs

- **Wireless network-** workshops (A two-day national workshop on E- Resources Management for Excellence, ERME-2010) awards (Scroll of Honour), Open House Session, technical talk and meetings
- **HPC&GC-** Seminar, workshops and collaboration with educational institutes
- **Green IT-** Enviromental awareness program and road shows, collaboration (The Energy Resource Institute), Creation of New Course(e-pragati)
- **Apart from these SIGs,** there are other SIGs also who are vibrant and working for knowledge sharing and promotion of particular discipline

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CSI PUBLICATIONS

- CSI Communications MONTHLY
- Quarterly Technical journal
- Chapter Newsletters
- STUDENT NEWSLETTER
- Proceedings
- Books

How to leverage csi infrastructure, processes and practices for promotion of w3c mission in india
ESPECIALLY TO SPREAD STANDARIZATION AND promoting
EDUCATION AND AWARENESS ON LANGUAGE PROCESSING

- Create Opportunity for csi members, academicians to participate in various w3c committees
- workshops and awareness programs
- Promotion of w3c certifications among strong base of 60,000 student members
- Focus tracks about NLP and w3c | csi events and seminars
- PROMOTION OF TDIL AND W3C thru csi Publications and KM site
- Special training for developers
- Joint research projects

Contact Details

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Thank You

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Landscape of CSI activities

2009-2010

Conferences & Seminars

National

International

NCVESCOM-09:
RING-9
NACLIN-2009
LIIT 2010
NCISC 10
SPICON-2010
NCAC-10
& BIG 2010

MDG-ICT 2009
CONSEG-09
IAMA2009
Networking 2010
IT Gov.Meet Egpt
IFIP Intntl.Conf.;
HCI 2010,
Int. Dev. 2010

Workshops & Trainings

Org. By CSI ED & Subject

CSI Certification

NW Arch & Design
Openspace(LAMP)
Robotics, Cloud
Computing, Mobile
Wireless Tech/App..
Cyber Crime &
Prevention, VLSI
Wrksp, Green ICT

Project Mgmt.,
Software Testing
British CS Exam
CDAC Courses
MOU signed with
PMI & CDAC

Research Projects

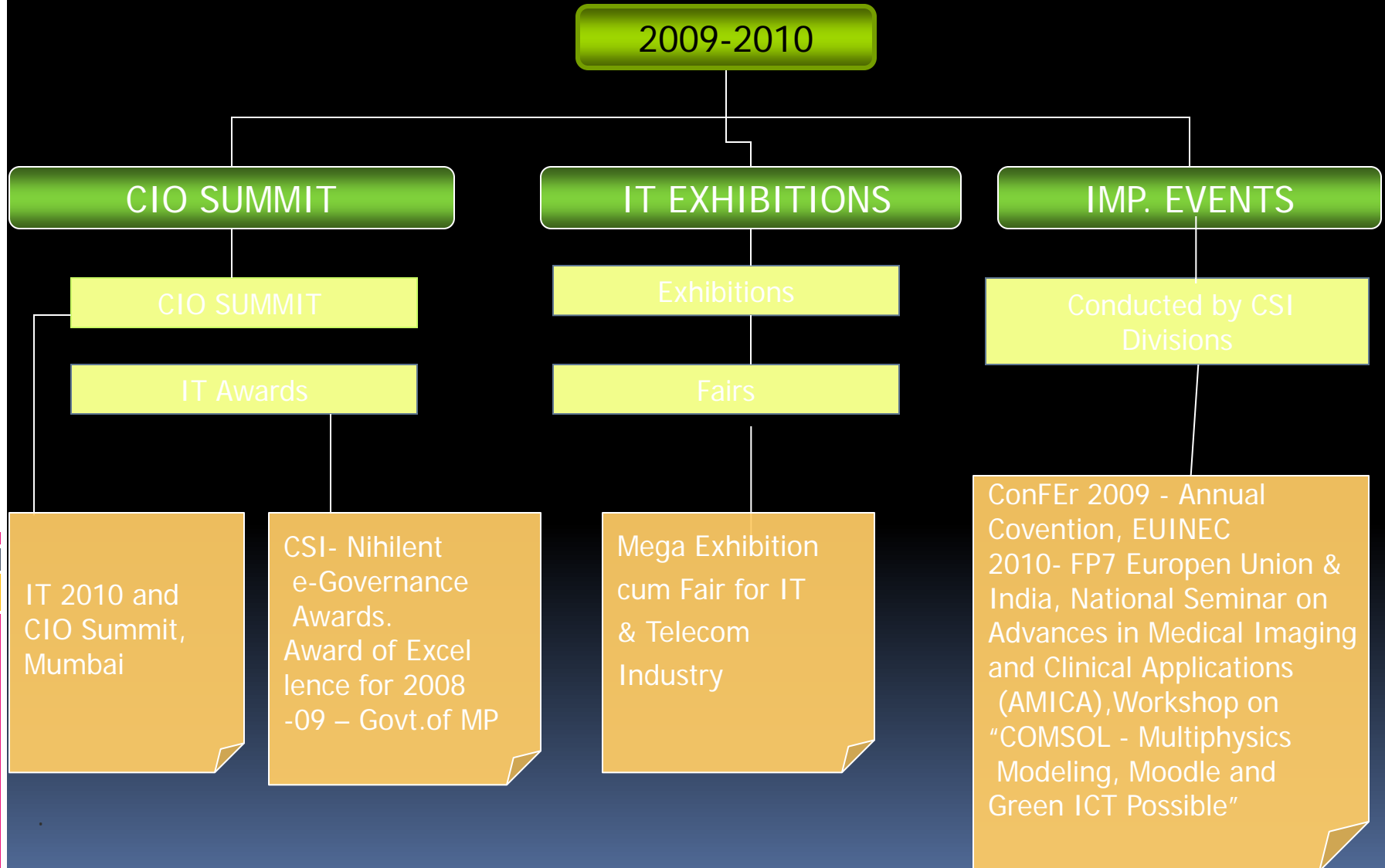
Funding Research Projects

R&D Events

Funding of 2.5 Lacs
for minor Research
Travel Exp for Tech
Paper Presentation
at International conf.
Promotion of R&D by
CSI Divns & SIGs



Landscape of CSI activities





Landscape of CSI activities

2009-2010

STUDENT FOCUSSED

Trng, Workshops & Seminars

Student Conventions

50 student focussed workshops,
100 Lectures on Technical Advancements

National, State and Regional Student Conventions;
Interactive Sessions with Industry Experts

CORPORATE FOCUSSED

Technology Forum

Knowledge Forum

CSI Security Tech. Forum Activities;
Swatantra'09-3rd National Symposium on Open Source

Lectures, Meet-ings on latest technology Advancements;
50 talks, 40 lectures, Participations from 50-400 delegates

SIG EVENTS

SIG on e-Gov, Foss

Knowledge Sharing

e-Governance Summit, SciPy 2010, SIG on FOSS, IT in Deference (SIG on Infor. Security) International workshop on Distributed Systems