

3rd International Conference on Information Technology

December 20-23, 2000

Swasti Plaza Hotel, Bhubaneswar, INDIA

Advance Program



www.cse.iitk.ac.in/~cit2000 ,
www.kiit.ac.in/cit2000
www.oits.org/cit2000

Organized by

KIIT-Bhubaneswar & OITS-Bhubaneswar

Co -Sponsored by

**NIST- Berhampur, NJIT-New Jersey, Distributed Software Research-
Lucent Technologies, IEEE NJ Section-New Jersey, IEEE India Council,
Kalinga Software-Bhubaneswar, Ahead Software Solutions-Calcutta**

INTRODUCTION

On behalf of the CIT'2000 Committee, we would like to welcome you to the 2000 International Conference on Information Technology at Bhubaneswar, India. CIT'2000 continues the tradition as a premier forum for the presentation of the latest research and development in the area of information technology and their applications. The international nature of the conference is evident with invited speakers and contributed papers from around the world.

Eight tutorials are scheduled for Wednesday, December 20. These are designed for broad appeal to the CIT'2000 participants including those unfamiliar with the topics. The tutorials are absolutely free and everyone is welcome to attend. The tutorials will be presented by active researchers in these fields.

The keynote talks in the conference will feature presentations on Reliability and Quality of Service in Enterprise Networks, Impact of the Internet on Higher Education, Dissemination of Dynamic Data on the Internet, Towards a Universal Model for Personal Mobility Management in Wireless Cellular Networks and Next Generation Information System Technology, Recent Advances in Logic Verification. A number of Invited presentations on the topics ranging from Security to E-Governance will also be featured in the conference. The speakers come from India and from a variety of regions abroad. On the afternoon of Friday, December 22, panel discussions on two important topics on the emerging role of information technology are planned.

It is with great pleasure that we extend a warm welcome to all the participants and authors who are to be commended for their efforts in preparing and presenting the high-quality papers that forms the foundation of this conference.

*Durgamadhab Misra, NJIT, USA and
Ratan Kumar Ghosh, IIT Kanpur, India
Program Chairs, CIT'2000*

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Science & Technology

**Kalinga Software
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Ahead
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GENERAL INFORMATION

Registration

Participants' Registration Fee:

Industry/Govt./Semi-Govt.	Rs. 3000.00
Foreign participants	US \$120/-
Academic	Rs.1,000/-
OITS life members	Rs.800/-
Students	Rs.400/-

Registration Fee entitles the registrant to one copy of proceedings, lunches, coffee breaks and all technical sessions. Tutorials are absolutely free. Everyone is welcome to attend. If you are a industry member it is suggested that you register for the conference.

Advance registration closes on Dec 10, 2000. Those who want to avail facility of registration desk at the conference must send a request to the Organizing Chair before 10th December, 2000. Intenational participants: if you can not end a cheque prior to the conference, mail the registration form to the rganizing Chair without payment prior to the conference, and pay the registration fee onsite; your registration materials will be held for you at the conference. .

REGISTRATION FORM AND PAYMENT SHOULD BE SENT TO:

Prashanta Mishra
KIIT, Patia,
Bhubaneswar - 751 031
pkm@stpbh.soft.net
Tel:+91-674-441998/443271
Mobile :9861020944
Fax:+91-674-554464

Panel Discussions

Panel Discussions, Friday December 22, 1-4PM:

- 1. Popularisation of Information Technology: On a Local Context**
- 2. Indian IT industries and IT institutions - a Symbiosis for Common Goal**

2000 International Conference on Information Technology

REGISTRATION FORM

Name:

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Intenational participants: Please mail/FAX the registration form to the rganizing Chair Dr. Prashanta Mishra (e-mail: pkm@stpbh.soft.net, FAX: +91-674-554464 without payment prior to the conference, and pay the registration fee onsite; your registration materials will be held for you at the conference.

Hotel Reservation

Official Hotel: Swosti Plaza, Bhubaneswar
Website: www.swosti.com
Contact Person: Mr. Sanjit Das
E-Mail: Swplaza@dte.vsnl.net.in
Phone: +91 674 585790/91
Fax: +91 674 585071

The Special CIT'2000 Room Rate:Rs.2000/-(Two thousand Indian Rupees)

2000 International Conference on Information Technology

HOTEL RESERVATION FORM

Last Name _____ First _____

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FAX No. _____

Date of Arrival _____ at _____ AM/PM _____

Date of Departure _____ at _____ AM/PM _____

TUTORIALS

Wednesday, December 20, 2000

Tutorials - I : Morning Session, 9.00 AM - 12.00 Noon

Chairs: N. Tripathy, Fujitsu Network Communications, USA and
M. Patra, Berhampur University, India

T.1. Human Computer Interface Design

Anirudha Joshi,

anirudha@idc.iitb.ernet.in

Abstract: What makes human-computer interfaces more usable? Solid functionality or powerful code optimization? Pretty graphics or clean layouts? This tutorial looks at some principles and measurable attributes that make human interfaces more usable.

About the Speaker: Anirudha Joshi has been working in the field of human-computer interface design and design for new media for the past eight years. Currently he is a faculty member in the Industrial Design Center in IIT Bombay. In addition to teaching HCI in IIT Bombay, he conducts workshops and training programs for participants from the industry. He is also a consultant to several software and Internet companies in the field of human-computer interface design and software usability engineering.

T.2. Soft Computing Techniques For Pattern Recognition

Dr. Basabi Chakraborty, basabi@soft.iwate-pu.ac.jp

Abstract: Soft Computing (SC) may be viewed as a consortium of various computing tools that have been developed in recent past for efficiently solving ill-defined and imprecise real world problems. Unlike traditional hard computing that are good for solving well structured precisely formulated problems, soft computing tools are tolerant of imprecision, uncertainty and partial truth to achieve tractability, robustness and low cost.

About the Speaker: Basabi Chakraborty received M. Tech and Ph.D in Radio Physics and Electronics from Calcutta University, India. She further received Ph.D in Information Science from Tohoku University, Japan. She is currently working as an Assistant Professor in the Software and Information Science department of Iwate Prefectural University. Her main research interests are in the area of Artificial Intelligence, Pattern Recognition, Fuzzy logic, Artificial Neural Network, Soft Computing and Computer Communication Networking.

T.3. Next Generation Middleware

Arvind W. Kiwelekar, awk@dbatu.ren.nic.in

Abstract: The level of the tutorial being introductory one, reviews the evolution of the middleware technology and also explores the features of the next

generation middleware platforms like CORBA/EJB. All those with Object Oriented background and zeal for honing their programming skills can attend the tutorial.

About the Speaker: Arvind W. Kiwelekar is presently working as the Head, Department of Computer Engineering of Dr. Babasaheb Ambedkar Technological University, Lonere, INDIA. He did his M. E. from VJTI, Mumbai. For a short period, he has worked in the System Administration group of C-DAC. He is the recipient of research fellowship from Indian Academy of Sciences, Bangalore. His areas of research include Distributed Systems, Databases and Cluster Computing.

T.4. Formal Models for Enterprise Engineering: Distributed Production Organizations

Dr. Tomasz Janowski, tj@iist.unu.edu

Abstract. Enterprise models provide a formalized representation of the core business activities of an industrial organization. They can become a useful resource for a company, helping to better understand its behavior, to analyze and optimize operations, to support management of change, to plan and monitor collaboration with its customers and suppliers. The tutorial outlines model construction for a distributed production enterprise, a recent trend in organizational development particularly suitable for the enterprises that carry out their activities on-line (including business-to-business transactions). The enterprise has several manufacturing enterprises operates independently to advance individual goals based on their own resources interacting with each other, when the goals exceed the capacity of any single enterprise. The tutorial shows how to tackle a well-defined set of semantic issues for distributed enterprise modeling (from concurrency, scheduling to distribution and real-time). Secondly, apply such models, via tools, to carry out systematic design and analysis of the organization's business goals and processes.

About the Speaker: Tomasz Janowski received an MSc in Mathematics from the University of Gdansk, Poland in 1989 and a PhD in Computer Science from the University of Warwick, England in 1995. His research interests include formal design of reliable systems from unreliable components (fault-tolerance), models and tools for enterprise engineering and the integration of static (proof-based) and dynamic (based on run-time error-detection) techniques in component-based software development.

Tutorials - II: Afternoon Session, 1.00 PM - 4.00PM

Chairs: M. Patra, Berhampur University, India and
N. Tripathy, Fujitsu Network Communications, USA

T.5. Wireless Local Area Network,

Mr. Partha Pratim Bhattacharya, ppb_nist@yahoo.com

Abstract: This course presents an overview of Wireless Local Area Network (WLAN). Two types of technologies – Radio frequency (RF) and Infrared (IR) will be focused. Different network topologies, antenna system, modulation and coding techniques for WLAN will be discussed followed by indoor propagation modeling, standard for WLAN and its applications.

About the Speaker: P.P.Bhattacharya has an M.Tech from University of Burdwan. He served Society for Applied Microwave Electronics Engineering and Research (SAMEER), an autonomous research organization under Govt of India, and National Institute of Science and Technology (NIST) as lecturer. At present he is Lecturer in College of Engineering and Management, Kolaghat (CEMK). His present research area includes Wireless communication, Microwave and Millimetrowave devices and circuits.

T.6. Mobile Adhoc Networks,

Sridhar Iyer, sri@it.iitb.ernet.in

Abstract: Mobile ad hoc networks (MANET) consist of a collection of mobile wireless computers. Different hosts communicate over wireless links, and messages may traverse multiple wireless links before reaching their destination. This tutorial will cover various network and transport issues, that arise as a result of the host mobility in MANET and discuss some approaches to address these issues.

About the Speaker: Sridhar Iyer is an Assistant Professor in the KR School of Information Technology at IIT Bombay. Prior to this, he was a faculty member in the Dept of Computer Science & Engg at IIT Guwahati. His teaching and research interests include areas in Distributed Systems and Mobile Computing.

T.7. Component Object Technology And Component Based Software Development,

K.Chandra Sekaran, kch@krec.ernet.in

Abstract: This tutorial focuses the major characteristics and features of components for software development. Also it aims to describe the means of using component technology solutions of MicroSoft (COM/DCOM/COM+) and, OMG (CORBA) and the interworking between them. A few case studies have been prepared to demonstrate these features.

About the Speaker: K.Chandra Sekaran has B.Tech, Phil(Engg), Ph.D. He is currently an Assistant Professor (in Computer Engineering Department) at Karnataka Regional Engineering College. He has one and half years of Industry and 13 yrs teaching and research experience. His specialization is Distributed Computing and Genetic Algorithms.

T.8. Cryptographic Protocol Analysis,
R.K. Shyamasundar, shyam@tcs.tifr.res.in

Abstract: In this tutorial, we shall provide an overview of the state of art of cryptographic analysis and discuss the some of the existing tools of analysis.

About the Speaker: R. K. Shyamsundar is the dean of School of Technology and Computer Science at Tata Institute of Fundamental Research, Bombay. He is a distinguished research scientist. He is a fellow of IEEE and an IEEE Computer Society CTP Speaker 2000-2003.

Conference Inaguration & Special Functions Time: 4.00 PM

TECHNICAL PROGRAMS

Thursday, December 21, 2000

Plenary Session - I (Session 1) Time: 9:00 AM - 10.45 AM

Welcome to Technical Program:

General Chair: Jayadev Misra, University of Texas at Austin

Session Chairs: Durga Misra, New Jersey Institute of Technology

R. K. Ghosh, Indian Institute of Technology - Kanpur

Keynote Papers

1.1 Reliability and Quality of Service in Enterprise Networks

Chandra M.R. Kintala, Vice-President, N/W Software Res., Avaya Labs
(Formerly Bell Labs), Avaya Inc., USA

1.2 Impact of the Internet on Higher Education

Gary Thomas, Chancellor, University of Missouri-Rolla, USA

10:45 AM - 11:15 AM 30 Minutes Break

Session 2: Invited Presentation - I Time : 11.15 AM - 12.00 Noon

Session Chair: Hrushikesh Mohanty, University of Hyderabad, India

11:15 AM

2.1 Network-Based Computing: Current Trend, Challenges, and the Future

D. Panda, Ohio State University, Columbus, Ohio, USA

12:00 Noon - 1:00 PM **LUNCH**

Session 3: Sequential and Parallel Algorithms (Parallel with Session 4)

Time: 1.00 PM - 2.00 PM

Session Chairs: D. Panda, Ohio State University, Columbus, Ohio, USA and
B.S. Panda, Bits-Pilani, India

1.00 PM

3.1 Parallel Recognition Algorithm for Chordal-Planer Graphs and Planer k-tree

BS Panda, Dept of CSE, BITS Pilani, India

Email:bspanda@bits-pilani.ac.in

1:20 PM

3.2 Computing Inverse Line Graph in Parallel

Aditya Shastri

IBM-India Research Laboratory

Block-I, IIT-Delhi, Hauz Khas, New Delhi-110 016, India

Email: saditya@in.ibm.com

1.40 PM

3.3 A New Algorithm for Total Cost Minimization in Distributed Query Processing

B. Vijayakumar, N. P. Gopalan,

Dept of CSE, REC Tiruchirapalli, India

Email: vijay@rect.ernet.in

Session 4: Web Based Information Management (Parallel with Session 3)

Time: 2.00 PM - 3.00 PM

Session Chairs: Sridhar Iyer, IIT-Bombay, India

2:00 PM

4.1 A System for Web Based Data Acquisition

B. Rajesh Kumar, K. Sridharan and K. Srinivasan

Dept. of CSE, IIT Guwahati, India

Email: k_srini@postmark.net

2:20 PM

4.2 Automatic Generation of Hyperlink Using Semantic Information

Kumaravel Senniappan and Pushpak Bhattacharya

Department of Computer Science & Engineering

Indian Institute of Technology, Bombay 400 076, India

Email: pb@cse.iitb.ernet.in

Session 5: Information Management (Parallel with Session 6)

Time: 2.00 PM - 3.00 PM

Session Chairs: A.K. Pujari, OCAC and S. Nandi, IIT Gahuati, India

2:00 PM

5.1 Spatial Relational Database Using Constraint Satisfaction

Model

M. K. Pradhan and Srikanta Patnaik
Dept of Electrical Engineering
University College of Engineering, Sampalpur, Burla, India
Email: srikantapatnaik@hotmail.com

2:20 PM

5.2 Distributed Query Optimization involving Multiple Nested Queries

B. Vijayakumar, N. P. Gopalan,
Dept of CSE, REC Tiruchirapalli, India
Email: vijay@rect.ernet.in

2:40 PM

5.3 Optimization of Chain Queries in a Distributed Relational Database

B. Vijayakumar, N. P. Gopalan,
Dept of CSE, REC Tiruchirapalli, India
Email: vijay@rect.ernet.in

Session 6: Imprecise Information Management (Parallel with Session 5)

Time : 2.00 PM - 3.00 PM

Session Chairs: S. Sarkar, IIT Kharagpur

2:00 PM

6.1 FZIOLOG: Integrated Representation of Formal and Fuzzy Knowledge

Girish Keshav Palshikar
Tata Research and Design Center
54 B, Hadapsar, Industrial Estate, Pune 411 013, India
Email: girishp@pune.tcs.co.in

2:20 PM

6.2 Logical Specification of Goals

Rajdeep Niyogi and Sudeshna Sarkar
Dept of CSE, IIT Kharagpur, India
Email: <rajdep,sudeshna>@cse.iitkgp.ernet.in

2:40 AM

6.3 Using Actions as Diagnostic Tools

Rex B. H. Kwok, Norman Y. Foo and Abhaya C Nayak
Computational Reasoning Laboratory, Division of ICS
Macquarie University, NSW 2109, Australia
Email: abhaya@ics.mq.edu.au

3:00 PM - 3:30 PM 30 Minutes Break

Poster Session I

Time: 3.30 PM

Session Chairs: N. P. Gopalan, REC Tiruchirapalli, India,

Poster Session II (students)

Time: 3.30 PM

Session Chair: Dr. Ajit Panda, NIST, India

3:30 PM

5 Minutes Presentation for all posters

4:30 PM - 5:30 PM **Poster Presentation at the Poster**

Poster Session I

P1.1 Web-Based Graphics with Fractals

S. Dube, MGP Prasad and K Sridharan
Dept. CSE, IIT Guwahati, India
Email: mgpp@postmark.net

P1.2 Design and Implementation of Personalized Search Engine

Kamalesh Dutta, A Seal, P. Sharma and S. Kumar
Dept of CSE, Hamirpur, India
Email: kamaleshdutta@yahoo.com

P1.3 A Hierarchical Architecture to Provide Integrated Services over Hybrid Networks

HK Pati, R Mall and I. Sengupta
Dept of CSE, IIT Kharagpur, India
Email: <hpati,rajib,isg>@cse.iitkgp.ernet.in

P1.4 Campeps: An Online Electronic Payment System

Verma Vishal, Kaushal Prashant, Nandi Sukumar
Dept of CSE, IIT Guwahati, India
Email: sukumar@iitg.ernet.in

P1.5 Requirement Analysis of E-Commerce Projects

Sudeep Mallick and Arun K Singh
E-Commerce Research Labs
Infosys Technologies Limited, Electronics City
Hosur Road, Bangalore 561 229, India
Email: <sudeepm, arunks>@inf.com

P1.6 System Modeling Using Virtual Instruments

Raghu B. Korrapati Webster University,
Columbia, SC 29207, Email:
Email: kraghu@webster.edu
Nikunja K. Swain, South Carolina State University,

Orangeburg, SC 29117,
Email: swain@sets.scsu.edu

Poster Session II (Student Posters)

P2.1 Elimination Of The Keyboard,

Debi Prasanna Patnaik
Electrical Engg.(B.E.)Dept., Regional Engg.
College,Rourkela-769 008 Orissa,India.

P2.2 Multisite Parallel Software Development

Debi Prasanna Patnaik
Electrical Engg.(B.E.)Dept., Regional Engg. College,
Rourkela-769 008 Orissa,India.

P2.3 Rule Discovery from a Student Marks Database Using

Genetic Algorithm Based Machine Learning
Abhishek Chatterjee, Asish Ranjan Subudhi
Department of Electronics and Communications Engineering, NIST,
Palur Hills, INDIA

P2.4 A Neural Network Based Solution To Human Face Recognition,

Debadatta Sahoo, Sasmita Kumari Sahu and Satyajit Acharya,
Department of Computer Science & Engineering,
NIST, Palur Hills, INDIA

P2.5 NIST-SET: An Object-Oriented Software Engineering Toolkit for Developing Database Applications

Debabrata Parida, NIST Training and Consultancy Services,
NIST, Palur Hills, Berhampur, INDIA

6.30 PM Dinner

Friday, December 22, 2000

Plenary Session II (Session 7) Time: 9.00 - 10.30AM

Session Chairs: R. K. Ghosh, Indian Institute of Technology, Kanpur and
Durga Misra, New Jersey Institute of Technology

Keynote Papers

9:00 AM

7.1 Dissemination of Dynamic Data on the Internet

K. Ramamirtham, University of Massachusetts, USA
9:45 AM

7.2 Towards a Universal Model for Personal Mobility Management in Wireless Cellular Networks

S. Das, University of Texas at Arlington, USA

10:30 AM 11:00 AM 30 Minutes Break

Session 8: Invited Presentation - II Time: 11.00 AM - 12.30PM

Session Chair: Bhed Bahadur Bista, Iwate Prefectural University, Japan

11:00 AM

8.1 Power Challenge in VLSI Circuits Today

P. Patra, Intel Corporation, USA

11:45 AM

8.2 Keys to Municipal Government Automation

S. Misra, CSDC Systems, Canada

12:30 PM - 1:30 PM LUNCH

Session 9: Security & Business Information Management (Parallel with Session 10) Time: 1.30 PM - 2.30 PM

Session Chairs: Dheeraj Sanghi, IIT-Kanpur, India and
Ashis K. Pani, St. Xavier Inst of Mgmt, Bhubaneswar, India

1:30 AM

9.1 Criteria For Developing Banking Interactive Voice Resonse

User Interface

Zulikha Jamaludin and Abdullah Embong
School of Information Technology
Universiti Utara Malaysia, 06010 Sintok, Kedah, Malaysia
Email: zulie@uum.edu.my, ae@cs.usm.my

1:50 PM

9.2 An Efficient Authenticated Asymmetric Key Exchange Scheme

Indraneel Chackraborty and Sukumar Nandi
Dept of CSE, IIT Guwahati, India
Email: sukumar@iitg.ernet.in

2:10 PM

9.3 Visual Authentication - A New Paradigm

Himanshu Raj and Sukumar Nandi
Dept of CSE, IIT Guwahati, India
Email: sukumar@iitg.ernet.in

Session 10: Computer Networks and Systems I (Parallel with Session 9)

Time: 1.30 PM - 2.30 PM

Session Chairs: S. Iyer, IIT Bombay, India

1:30 PM

10.1 Active Networks - Directions and dead ends

V Kumar and M Naik

Computer Networks and Internet Engineering Division
National Center for Software Technology
Gulmohar Cross Road No. 9, Juhu, Mumbai - 400 049

1:50 PM

10.2 SCAMP: SCALable Multicast Protocol for Communication in Large Groups

Dheeraj Sanghi and Atul Vadera
Dept of CSE, IIT Kanpur 208 016, India
Email: dheeraj@cse.iitk.ac.in

2:10 PM

10.3 End to End Internet Quality of Service (QoS): An Overview of Issues Architecture and Framework

R. Chakraborty, S. Kar and P. Farjami
Multime Solution Group, Silicon Automation Systems
Bangalore, India, Email: rajivc@ieee.org

2:30 PM - 3:00 PM 30 Minutes Break

PANEL DISCUSSION - I : Popularisation of Information Technology: On a Local Context (Parallel with Panel Discussion - II)

Time: 3.30 PM - 4.30 PM

Moderator: TBA, Styam Computers Hyderabad

Participants: 1) Dr. S.P. Misra, President OITS-Bhubaneswar
2) Mr. A. Meena, DM, Keonjhar
3) Mr. S.P. Nanda, IT Secretary Govt of Orissa
4) Prof. AK Bisoi, Head CSE, IGIT-Sarang
5) Prof. RK Chhotray, CSE Dept, REC-Rourkela

PANEL DISCUSSION - I I: Indian IT industries and IT institutions - a Symbois for Common Goal (Parallel with Panel Discussion - I)

Time: 4.15 PM - 5.45 PM

Moderator: P. Patra, Intel Corporation, USA

Participants: 1) Mr. P.C. Sahu, DOT, Bhubaneswar
2) Mr. Rakesh Agarwal, Infosys, Bhubaneswar
3) Mr. Pradeep, OSI Technologies, Hyderabad
4) TBA, TCS
5) TBA, University of Hyderabad

6:00 PM Dinner

Saturday, December 23, 2000

Plenary Session III (Session 11)

Time: 9.00 AM - 10.30 AM

Session Chairs: R. K. Ghosh, Indian Institute of Technology, Kanpur
Durga Misra, New Jersey Institute of Technology

Keynote Papers

9:00 AM

11.1 Next Generation Information System Technology

S. Noguchi, President, University of Aizu, Japan

9:45 AM

11.2 Recent Advances in Logic Verification

Dhiraj Pradhan, Oregon State University, USA

10:30 AM - 10:45 AM 15 Minutes Break

Session 12: Invited Presentation - III

Time : 10.45AM - 12.15AM

Session Chair: Goutam Chakraborty, Iwate Prefectural Univ, Japan
Onn Sehory, IBM Research Center, Tel-Aviv, Israel

10:45AM

12.1 Internet Security Assurance and Policy based Network Management

G. Shivkumar, IIT Bombay

11:30 AM

12.2 Trends in Multiprocessor System Design

D. Das Sharma, HP, USA

12:15 AM - 1:00 PM LUNCH

Session 13: Distributed & Object Based Systems (Parallel with Session 14)

Time: 1.00 PM - 2.00 PM

Session Chairs: A. Shastri, Banasthali Vidyapith, India

1:00 PM

13.1 Generalized Hierarchical Messge Sequence Charts (MSC+)

Mesfin Belachew, A Gandhi and RK Shyamsundar
Faculty of Technology and Computer Science, TIFR
Homi Bhaba Road, Mumbai 400 005, India
Email: shyam@tcs.tifr.res.in, ashit@giasbmc.vsnl.net.in,
shaibaz@flash1.flashmail.com

1:20 PM

13.2 Implementation of a Distributed System Using Object Based Shared Memory

N. Ramasubramanian, R. Suriyapriya,
X. Amala and Sahaya Babu
Dept of CSE, REC Tiruchirapalli 620015, India
Email: NRS@rect.ernet.in

1:40 PM

13.3 Instance modeling - beyond object- Oriented modeling

Giorgio Bruno, Marco Torchiano, Rakesh Agarwal
Dip. Automatica e Informatica Politecnico di Torino,
C.so Duca degli Abuzzi, 24, I-10129 Torino, Italy
Infosys Technologies Ltd., Near Planetarium,
N.H.5, Bhubaneswar - 751013, India.

Session 14: Sequential & Parallel Algorithms (Parallel with Session 13)

Time: 1.00 PM - 2.00 PM

Session Chairs: B. S. Panda, BIT-Pilani, India and
G. Sajith, IIT-Guwahati, India

1:00 PM

14.1 A Reuse Approach for Tree Data Structures

Shaleen Agarwal
s/o Mr. SK Agarwal, 4 Anupam Vihar, Engineers' Enclv.
P.O. Konwali, Dehradun -248001, India
Email: shaleen_iit@mailcity.com

1:20 PM

14.2 Constant Time Parallel Algorithm for Submesh Allocation and Job Scheduling on Partitionable Mesh Connected System (PMCS)

Shailendra Kumar, Manish Arora and PK Jana
Birla Institute of Technology, Mesra, Ranchi 835215, India

1:40 PM

14.3 A Technique for Parallel Reachability Analysis of Java Programs

Raghuraman Rangarajan, Sridhar Iyer, & G. Sajith
School of Information technology, IIT Bombay

2:00 PM - 2:30 PM 30 Minutes Break

Session 15: Image Processing and Image Based Systems (Parallel with Session 16)

Time: 2.30 PM - 3.30PM

Session Chairs: A. K. Bisoi, IGIT Sarang, India

2:30 PM

15.1 Machine Recognition of Printed Oriya Characters

Peeta Basa Pati, AG Ramakrishnan and UK Arvind Rao
Biomedical Laboratory, Dept of Electrical Engineering
Indian Institute of Science, Bangalore 560 012, India
Email: pati@ee.iisc.ernet.in

2:50 PM

15.2 Filtering Schemes For Removal Of Impulse Noise Using Fuzzy Detector

G. Panda, B. Majhi and P.K. Dash,
Regional Engineering College, Rourkela - 769 008, ORISSA, INDIA

3:10 PM

15.3 An Efficient Image Compression Technique Using Spline Wavelet

G. Panda And S. K. Meher
Department Of Applied Electronics And
Instrumentation Engineering, REC, Rourkela-769008, India

Session 16: Issues in Soft Computing I (Parallel with Session 16)

Time: 2.30 PM- 3.30 PM

Session Chairs: T Daud, Caltech, USA and
Pushpak Bhattacharya, IIT-Bombay, India

2:30 PM

16.1 Speed Challenge: A Case For Hardware Implementation in Soft Computing

Taher Daud, Tuan Duong, Didier Keymeulen, Ricardo Zebulum, Adrian Stoica, Tyson Thomas, and Anil Thakoor
Jet Propulsion Laboratory, California Institute of Technol.,
Pasadena, California, USA

2:50 PM

16.2 A Dynamic Channel Assignment Scheme Using Artificial Neural Network Paradigm

S. Udgata and S. Mahapatra
PG Dept of Computer Science, Berhampur University,
Berhampur Orissa - 760 007, India
Email: udgata@hotmail.com

3:30 PM - 3:45 PM 15 Minutes Break

Session 17: Computer Network and Systems II (Parallel with Session 18)

Time: 3.45 PM - 4.45 PM

Session Chairs: S. Iyer, IIT Bombay, India

3.45 PM

17.1 Linear Prediction for Traffic Management and Fault Detection

A Ramasamy, Hema A Murthy and TA Gonsalves
TeNeT Group, Dept of CSE, IIT Madras, Chennai 600 036
Email: <ramudu, hema, tag>@tenet.res.in

3:40 PM

17.2 Concept-based Clustering of Clickstream Data

Arindam Banerjee, Vishal Mishra and Joydeep Ghosh
Dept. of Electrical and Computer Engineering,
University of Texas at Austin, Austin, TX 78712

4:05 PM

17.2 Subtask Deadline Assignment and Scheduling of Real-time Tasks

Satyanarayan V Nandury, Rajib Mall and Ajit Pal
Dept of CSE, IIT Kharagpur, India
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Session 18: Issues in Soft Computing II (Parallel with Session 17)

Time: 3.45 Pm - 4.45 PM

Session Chairs: T. Daud, CalTech, USA and G. Sajith, IIT Guwahati, India

3:45 PM

18.1 A Genetic Inspired Algorithm with Greedy Mutation for Channel Assignment Problem in Cellular Networks

Goutam Chakraborty
Iwate Prefectural University, Takizawamura
152-52 Sugo, Japan 020-0193
Email: goutam@soft.iwate-pu.ac.jp

4:05 PM

18.2 Time-series Stock Forecasting of P500 index of NYSE Using Functional Link ANN

Barun Gupta and Sanjay K. Jena,
Department of Computer Science Engineering & Applications
Regional Engineering College, Rourkela -769008,INDIA.

4:25 PM

18.3 Generation of Synthetic Textures Using Markov Random Field and Genetic Algorithm

Satyajit Acharya, Anubrat Das and Manoranjan Mishra
Department of Computer Science,
National Institute of Science and Technology, Palur Hills

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