REPORT ON

2024 – 2ND International Conference on Knowledge Engineering and Communication Systems

APRIL-18 – 19,2024

|| Jai Sri Gurudev ||

Sri Adichunchanagiri Shikshana Trust (R.)

SJC INSTITUTE OF TECHNOLOGY

VTU Affiliates, AICTE Approved, Accredited by NBA (CSE, ISE, ECE, ME, CV, AE) & NAAC with A+ Grade, NIRF (151-300), Gold rated by QS I-Gauge

Chikkaballapura - 562 101, Karnataka

IEEE
BANGALORE SECTION

Hearty Welcome

2nd IEEE International Conference on
KNOWLEDGE ENGINEERING AND
COMMUNICATION SYSTEMS
(ICKECS - 2024)

Date: April 18 -19, 2024 | *Venue: BGS Conference Hall, SJCIT*

Distinquished Speakers

Keynote Speech

Mr. Suhas Gopinath

Founder, CEO & Chairman, Global Inc., a Multinational IT Company, US & European Countries. Advisor, NSTEDB, DST, GoI

Dr. Parthasarathy Ramaswamy

Senior Principal Engineer at Intel Corporation, Bengaluru

Invited Talk

Dr. Rajkumar Buyya

Director, Cloud Computing and Distributed Systems Laboratory, University of Melbourne, Australia

Plenary Talk

Dr. S S Iyengar

Ryder Professor & Director of Computer Science at Florida International University, Maimi, Florida, USA

By: Management, Principal, Registrar, HoDs, Staff and Students

About SJC Institute of Technology

SJC Institute of Technology is a premier institute under Visvesvaraya Technological University (VTU) established in 1986. The Institute is managed by Sri Adichunchanagiri Shikshana Trust(R.) founded in 1974 by the divine soul of Jagadguru Padmabhushana Sri Sri Sri Dr. Balagangadharanatha MahaSwamiji. The trust is under the astute visionary and spiritual guidance of Paramapoojya Jagadguru Sri Sri Sri Dr. Nirmalanandanatha Maha Swamiji. The Trust runs more than 516 Institutions all over the states of Karnataka, Maharashtra, Tamilnadu, Andhra Pradesh & Delhi. SJCIT is approved by AICTE, accredited by NAAC with A+ Grade, 6 Engineering Departments Accredited by NBA, NIRF Ranking in the bandwidth of (151-300) and Gold rated by QS I-Gauge. The institute offers eleven UG Courses: ECE, CSE, ISE, ME, CE, AE, AS, AI-ML, AI&DS, CSD & CV (Kan) and Five PG Courses in Engineering and MBA along with Nine VTU recognized R&D centers. The institute has an excellent track record of results with university ranks and placements in past years. Along with academics, the students also participate and excel in extra-curricular and co-curricular activities through active cultural, sports and social groups. Our goal is to mould students into highly skilled technical and management professionals with a wide range of analytical, strategic and leadership capabilities to meet the global challenges.

Highlights:

- 38 years of excellence with relentless service to society imparting quality education.
- 3060+ Students and 24000+ alumni network.
- 204+ Experienced, Well qualified and Passionate faculty with 60+ Doctorates, 210+ Non-Teaching Staff.
- Consistency in achieving 95% & above Results with Ranks and Medals at University Exams. 72 Ranks and 15 Gold Medals have been fetched so far.
- Training and Expert Guidance on Technical Domains for Placement and Career Development with blended training model.
- 100% Placement opportunity for all Students and more than 95% Placements for eligible candidates. 850+ job offers in 2022, 720+ job offers in 2023 and 350+ in 2024 still on going, with highest package of 28 LPA and average package 5.6 LPA.
- BGS-SJCIT Incubation foundation, IP Cell, EDC, CoEs, Student Excellence and Empowerment Development Center (SEED).
- BGS R&D Centre - BARC, NAIN, BOSCH REXROTH Automation Centre, Completed funded projects worth 3 crores and ongoing sponsored projects worth 1 crore.

About ICKECS

The International Conference on Knowledge Engineering and Communication Systems (ICKECS-2024) is intended to provide a common platform to Research Scholars, Academicians, Scientists,

Industrial Practitioners and Engineers in frontline evolutionary and challenging fields. ICKECS–2024 will act as a premier forum for researchers and practitioners interested in advances and applications of Knowledge Engineering, Image Processing and Communication Systems. It is an opportunity to observe the latest research trends and recent ideas in these areas. ICKECS- 2024 aims to strengthen relationships between Industries, Organizations and Institutions.

The foremost objective is to create a networking stage for intellectuals, to exchange their ideas and findings for technological evolution to benefit society. It is expected to bring the global researcher community together for knowledge sharing, innovation and technological achievements. Authors are solicited to contribute to the conference by submitting articles that illustrate research results, projects, experiment works and industrial experiences that describe significant advances within the scope of the conference.

Knowledge Engineering

Intelligent Information Processing Systems

Data Warehousing, Data Mining, Web Mining and Knowledge Management

Data grids, Cloud Computing, Big Data, Data Science and Predictive Analytics

Computer Graphics and Animation, Computer Vision, Content Based Image Retrieval, HCI and Multi-Dimensional Indexing

Artificial Intelligence, Expert Systems, NLP, Machine Learning and Soft Computing Applications

Quantum Computing and High-Performance Computing

Digital Image Processing, Knowledge Engineering in IOT

Bio-Medical Image Processing, Image Databases and Bio-informatics

User Experience, Device Mesh, Digital Duals, Automation

Web Technologies and Nano-technology

Modelling, Simulation and Monitoring Techniques

Coding and Processing, Virtual and Augmented Reality

Grid Networks and High-Speed Networks

Video Streaming Graphics and Network Data Analysis Reinforcement Learning

Smart Grid and Smart Technologies

Communication Systems

Computer Communication Systems - Wireless, Ad-hoc, 4G;5G;6G Communications

Sensor Multimedia and MIMO Communications

Emerging Technologies in Network Communications and Signal Processing

Optical, Mesh Networks and IOT

Protocol Engineering, Network Control and Service Architectures

Resource Coordination and Management

Quality of Service in Communications

Queuing Network Models Communication and Information Systems Security

Satellite and Space Communications

Simulation and Automation

Quantum Information Theory

Channel Estimation

Acoustic Communication

Signals and Systems

Power electronics

 Instrumentation and Control in Electronic Devices.

Robotic and Control Systems

Signal, Image and Video Processing

Electrical Vehicular Systems

VLSI and Embedded Systems

Distinguished Speakers of ICKECS -2024

Mr. Suhas Gopinath
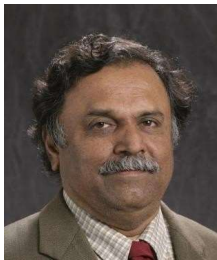Indian Entrepreneur.
Founder, CEO and Chairman, Globals Inc.,
 Advisor, NSTEDB, DST, Govt of India

Dr.Parthasarathy Ramaswamy
SeniorPrincipal Engineer
IntelCorporation, Bengaluru.

Dr. S S Iyengar
Ryder Professor and Director of Computer Science at Florida International
University, Miami, Florida, USA.

Dr. Rajkumar Buyya
Director, Cloud Computing and Distributed Systems Laboratory, Uni
Melbourne, Australia.

Profile of Distinguished Speakers

Mr. Suhas Gopinath

Suhas Gopinath is an Indian business person, who is the Founder, Chief Executive Officer (CEO) and Chairman of the worldwide IT organization, Globals Incorporation. Three years after the dispatch of the organization, he became CEO at 17 years old. Around then, he was the world's most youthful CEO of an organization.

Education

♦ Bachelor of Engineering from Ramaiah Institute of Technology.
♦ Economics, Public Leadership, Policy from Harvard University.
♦ Diploma on global leadership and public policy from the John. F. Kennedy School of Government and Harvard University

Honors and Awards

♦ World's Youngest Entrepreneur grant by CNBC and eBusiness.

♦ World's Youngest CEO grant from Limca, BBC, Washington Times, The Age.

♦ Most youthful CEO among the 175 beneficiaries of Karnataka's Rajyotsava Award in 2005.

♦ Young Achiever Award by the European Parliament and International Association for Human Values on 2 December, 2007.

♦ He was welcome to address the World Bank's ICT Leadership Roundtable for embracing ICT in Africa.

♦ For 2008-2009, he was pronounced the Young Global Leader by the World Economic Forum, Davo.

♦ In 2009, Global Social Innovators discussion consulted him with the SIP Fellow Award.

♦ Honorary Fellowship from Gitam University, Visakhapatnam.

Dr. Parthasarathy Ramaswamy

Dr. Parthasarathy Ramaswamy is a senior principal engineer in the data center group at Intel corporation. His expertise spans across client and data center compute platform electricals. His research interests include advanced materials for high-speed interconnect solutions.

Education

Master's degree in Business Administration and Management from IIM, Calcutta.

Ph.D. in Electrical, Electronics and Communications Engineering from IISc.

M.E. in Electronics from Birla Institute of Technology and Science, Pilani.

B.E. in Electrical, Electronics and Communications Engineering from SDM College of Engineering and Technology.

Experience

Principal Engineer at Intel Corporation from 2003 - Present

Senior Hardware Designer at Meriton Networks from 2001 - 2003

Hardware Specialist at WIPRO Technologies from 1998 – 200

Dr. Rajkumar Buyya

Dr. Rajkumar Buyya is a Redmond Barry Distinguished Professor and Director of the Cloud Computing and Distributed Systems (CLOUDS) Laboratory at the University of Melbourne, Australia. He is also serving as the founding CEO of Manjrasoft, a spin-off company of the University, commercializing its innovations in Cloud Computing.

Education

Ph.D. from in Computer Science and Software Engineering Monash University

M.E. in Computer Science and Engineering from U.V.C.E, Bangalore University

B.E. in Computer Science and Engineering from J. M. Institute of Technology, University of Mysore

Achievements

- Made pioneering contributions to various aspects of distributed and cloud computing, grid computing, resource management, scheduling, and provisioning in distributed environments.
- Authored or co-authored over 800 research publications, including numerous highly cited papers and several books.
- Received IEEE Computer Society Technical Achievement Award for his outstanding contributions to the field of scalable computing.

Dr. S S Iyengar

Dr. S.S. Iyengar is currently the Ryder Professor of Computer Science and Director of the School of Computing and Information Sciences at Florida International University (FIU), Miami. He is also the founding director of the Discovery Lab. Prior to joining FIU, Dr. Iyengar was the Roy Paul Daniel's Distinguished Professor and Chairman of the Computer Science department for over 20 years at Lousiana State University.

Education

Professor Iyengar earned his undergraduate and graduate degrees at UVCE-Bangalore and the Indian Institute of Science, Bangalore and a doctoral degree from Mississippi State University.

Achievements

- His research has been funded by the National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), Multi-University Research Initiative (MURI Program), Office of Naval Research (ONR), Department of Energy / Oak Ridge National Laboratory (DOE/ORNL), Naval Research Laboratory (NRL), NASA, US Army Research Office (URO), and various state agencies and companies.
- Dr. Iyengar is developing computational measures for predicting DNA mutations during cancer evolution, using wavelet analysis in cancer genome research, and designing smart bio- markers for bio-remediation.
- He recently patented a simple, low-cost device for early intervention in glaucoma, early detection of lung cancer by developing a 4D motion model jointly with Southwestern

ICKECS 2024 CONDUCTION ON APRIL 18TH -19TH , 2024

The conference started with seeking the Divine Blessings of his Holiness Jagadguru Padmabhushana Sri Sri Sri Dr.Balagangadharanatha Mahaswamiji and seeking the Divine Blessings of his Holiness Jagadguru Sri Sri Sri Dr.Nimalanandanatha Mahaswamiji and with the blessings of Sri Sri Mangalanatha Swamiji.

➢ Dr.G T Raju,Principal, SJCIT and General chair ICKECS-2024 welcomed the dignitaries and participants to the Conference of ICKECS

➢ Dr.Manjunatha Kumar B H, Professor and HoD CSE & Organizing Chair ICKECS-2024 presented the report about the conference.

➢ This conference began with the keynote speech by our chief guests, Mr. Suhas Gopinath and Dr. Parthasarathy Ramaswamy. They provided valuable insights into emerging trends and future directions in Knowledge Engineering and Communication Systems. These addresses set the tone for the conference and inspired attendees to delve deeper into the subject matter.

➢ Keynote address was followed by the Ashirvahana from our Poojya guruji.

➢ Then plenary talk and invited talk were delivered by Dr. S S Iyengar and and Dr. Rajkumar Buyya respectively.

➢ 30 technical paper presentation sessions were conducted; these sessions allowed participants to connect with peers, establish collaborations, and exchange ideas informally. These interactions fostered a sense of community among attendees and encouraged future collaborations.

➢ Conference proceedings containing abstract and introduction of quality contributions made by the researchers was released in the inaugural function.

Sl. No.	Timings		Program	Particulars
1.	(00)	03	Naadageethe	Recorded
2.	(03)	02	Invocation	**Ms. Shreelakshmi G**
3.	(05)	10	Welcome	**Dr. G T Raju** Principal, SJCIT
4.	(15)	05	Lighting the Lamp	Paramapoojya Jagadguru **Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji** & **Dignitaries**
5.	(20)	05	About ICKECS-2024	**Dr. Manjunatha Kumar B H** Professor & HOD, CSE, Organising Chair, ICKECS.
6.	(25)	05	Release of Conference Proceedings	Paramapoojya Jagadguru **Sri Sri Sri Dr. Nirmalanandanatha Mahaswamiji** & **Dignitaries**
7.	(30)	15	Address by Chief Guests and Guest of Honor	**Mr.Suhas Gopinath** Indian Entrepreneur. Founder, CEO and Chairman, Globals Inc., Advisor, NSTEDB, DST, Govt of India.
8.	(45)	15		**Dr. Parthasarathy Ramaswamy** Senior Principal Engineer Intel Corporation, Bangalore
9.	(60)	05		**Dr. Parameshachari B D** SAC Chair, IEEE Bangalore Section Professor & Head, Department of ECE Nitte Meenakshi Institute of Technology, Bengaluru
10.	(65)		Ashirvachana	**His Holiness Jagadguru Sri Sri Sri** **Dr. Nirmalanandanatha Mahaswamiji**
11.	--		Vote of Thanks	**Dr. Rangaswamy C** Professor & HOD, ECE,SJCIT
12.	--		National Anthem	**Recorded**
	Total = 90 Minutes.			

Invited and Plenary Talks

Sl. No.	Timings	Speakers
1	11.30 a.m to 12:00 p.m.	**Dr. S S Iyengar** Ryder Professor and Director of Computer Science at Florida International University, Miami, Florida, USA
2.	12.00 p.m to 01:00 p.m.	**Dr. Rajkumar Buyya** Director, Cloud Computing and Distributed Systems Laboratory, University of Melbourne, Australia

- Total 292 papers were presented in the conference by the authors from across the globe.
- 137 from Karnataka, 57 from Tamilnadu, Andra Pradesh – 15, Telangana State – 11, Maharashtra – 18, Uttar Pradesh – 1, Punjab – 13, Delhi – 5, Rakastan – 3, Uttar Khand – 1, Kerala – 1, Pondicherry – 1, Abroad – 28.

Event Schedule:

DAY - 01 (18th April 2024)		
Sl. No.	Timings	Program
1.	9:00 a.m. to 10:00 a.m.	Breakfast
2.	10:00 a.m. to 11:30 a.m.	Inaugural Function
3.	11.30 a.m. to 12:00 p.m.	**Invited Speaker** **Dr. S S Iyengar** Ryder Professor and Director of Computer Science at Florida International University, Miami, Florida, USA
4.	12.00 p.m. to 01:00 p.m.	**Distinguished Speaker** **Dr. Rajkumar Buyya** Director, Cloud Computing and Distributed Systems Laboratory, University of Melbourne, Australia
5.	01:00 p.m. to 02:00 p.m.	Lunch
6.	02:00 p.m. to 03:30 p.m.	Session-1 Paper Presentation
7.	03:45 p.m. to 05:15 p.m.	Session-2 Paper Presentation

DAY - 02 (19th April 2024)		
Sl. No.	Timings	Program
1.	9:00 a.m. to 10:30 a.m.	Session-3 Paper Presentation
2.	10:45 a.m. to 12:15 p.m.	Session-4 Paper Presentation
3.	01.00 p.m. to 02:30 p.m.	Session-5 Paper Presentation
4.	02.45 p.m. to 04:15 p.m.	Session-6 Paper Presentation
5.	04:30 p.m. to 05:00 p.m.	Valedictory Function

The International Conference on Knowledge Engineering and Communication Systems was a resounding success, attracting a diverse audience and facilitating meaningful exchanges among researchers and practitioners . The conference served as a platform for advancing knowledge, fostering collaborations, and addressing key challenges in the field. As the conference concluded, participants left with new insights, valuable connections, and a renewed enthusiasm to contribute to the advancement of Knowledge Engineering and Communication Systems

Glimpses of - 2ⁿᵈ IEEE International Conference on Knowledge Engineering and Communication Systems

Signature   Signature

Dr. Manjunatha Kumar BH   Dr.G T Raju

Professor&HOD,CSE   Principal, SJCIT

Organizing Chair ICKECS   Genera chair ICKECS