
AUTOMATIC CONTROL AND DYNAMIC OPTIMIZATION SOCIETY



Annual Report for 2023—2024

presented on

Annual General Body Meeting

26th October 2024



Automatic Control & Dynamic Optimization Society
Indian National Member Organization of
INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL



Contents:

- A. Introduction
- B. Major events/Activities/Programs during 2023—24
- C. Upcoming Events/Activities during 2024—25
- D. ACDOS-Budget/ Finances/Accounts
- E. Young Professional Activities

Section A: Introduction

Automatic Control and Dynamic Optimization Society (ACDOS) was established in 2011 with the noble objective of promoting automatic control and dynamic optimization discipline in academia and industry across India and the world. The society aims to host international conferences, symposiums and technical workshops in India regularly in order to promote close interaction between industry and academia. ACDOS is a proud National Member Organization (NMO) of the International Federation of Automatic Control (IFAC), which has its presence in over 50 countries worldwide with a mission to promote the science and technology of automatic control through technical meetings, publications and other means.

The Automatic Control and Dynamic Optimization Society (ACDOS) was registered on 8th July, 2011 with the state government of Karnataka. The current office bearers of the society are:

1	President of the society	Dr. Jayesh Barve
2	Vice-President & President-Elect	Prof. S. Faruque Ali
3	Immediate Past President	Prof. Sukumar Mishra
4	Vice-President	Prof. Bidyadhar Subudhi
5	General Secretary	Prof. Tousif Khan N
6	Joint Secretary	Dr. Pushpak Jagtap
7	Treasurer	Dr. S. N. Omkar
8	Director of Operations	Prof. Radhakant Padhi
9	Executive Committee Member	Dr. Vaibhav Katewa,
10	Executive Committee Member	Dr. I Thirunavukkarasu
11	Executive Committee Member	Dr. Vipin Chandra Pal

ACDOS Membership Status:

Professional Members: 310 (needs to be updated)

Student Members: 83 (needs to be updated)

Honorary Members: 26 (needs to be updated)

Section B: Major Activities/Events/Programs in 2022—2023

The events conducted under the banner of ACDOS from September 2023 to October 2024 are,

1. The Eight IFAC International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS 2024) during 12-15 March 2024 at Shiv Nadar Institute of Eminence, Delhi-NCR.
2. An IEEE Bangalore CSS Chapter & ACDOS Joint Seminar on “An Overview of Estimators for Spacecraft Attitude and Orbit Control System” on 21st December 2023 in virtual mode.
3. ACDOS Technically co-sponsored the International Conference on Computational Intelligence for Green and Sustainable Technologies (ICCIGST-2024) during July 18-19, 2024, at Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC), Andhra Pradesh, India.
4. IFAC Sponsored a 3-day Workshop on the Wonders of Control Engineering via Drone Flying and Electric Vehicle, at CUTM Bhubaneswar during 24-26 October 2024.

Event—I: Eight IFAC International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS 2024)

The Eight IFAC International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS 2024) was jointly organized by Shiv Nadar Institute of Eminence and ACDOS from 12-15 March 2024 at Shiv Nadar Institute of Eminence, Delhi-NCR.





EIGHTH (8TH) IFAC INTERNATIONAL CONFERENCE
ON
ADVANCES IN CONTROL AND OPTIMIZATION OF DYNAMIC SYSTEMS
(IFAC ACDOS 2024)
Jointly Organized by



Shiv Nadar Institute of Eminence
Deemed to be University (Shiv Nadar Ioe)
National Organizing Committee

General Chairs	Prof. Radhakant Padhi (IISc Bangalore) Prof. Sunett Tuli (Shiv Nadar Ioe)
Program Chairs	Prof. Sukumar Mishra (IIT Delhi) Prof. J. Saragapan (MST Rolla, USA)
Technical Chairs	Prof. Shaikh Faruque Ali (IIT Madras) Prof. Sergio Esteban (Sevilla, Spain) Prof. Ramakrishnan Ayyagari (MIT Trichy)
Finance Chairs	Dr. Naveen Babu (Shiv Nadar Ioe) Mr. Alok Sharma (Shiv Nadar Ioe)
Local Arrangement Chairs	Dr. Sonal Singh (Shiv Nadar Ioe) Ms. Shalini Dutta (Shiv Nadar Ioe)
Publicity Chairs	Dr. Pushpak Jagtap (IISc Bangalore) Dr. Sanat Biswas (IIT Delhi)
Industrial Liaison Chairs	Dr. Jayesh Barve (GE Bangalore) Ms. Zahida Waseem (Mathworks, India)

International Advisory Committee

Co - Chairs	Prof. Ian Craig (Univ. of Pretoria, ZA) Prof. Ananya Mukherjee (Shiv Nadar Ioe)
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Deadlines	Paper Submission Deadline: 10 Oct 2023 Acceptance Notification: 31 Nov 2023 Final Paper Submission: 31 Dec 2023
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REGISTRATION TYPE	ADVANCE REGISTRATION (TILL 15 JAN 2024)	LATER OR ONSITE REGISTRATION (FROM 16 JAN 2024)
STUDENT	₹ 6,000.00 / USD 75	₹ 8,000.00 / USD 100
ACADEMIC / R&D ORGANISATION / PROFESSIONAL	₹ 18,000.00 / USD 200	₹ 20,000.00 / USD 250
INDUSTRY	₹ 20,000.00 / USD 250	₹ 24,000.00 / USD 300

*Additional 18% GST will be charged as per Govt. regulation

IFAC ACDOS: ACDOS is a biennial flagship conference of the Automatic Control and Dynamic Optimization Society (ACDOS) which is an Indian NMO of IFAC. ACDOS aims to bring together an international community of researchers and practitioners from academia, industry, and research labs to disseminate new developments and advances in control and optimization of dynamical systems.

Click the link or scan QR Code for more information:
<https://acdoss-conference.org/>



Paper Submission site (already open):
<http://ifac.papercept.net/conferences/scripts/start.pl>



Prof. Anurag Kumar
Former Director & Honorary Professor, Electrical Communication Engineering, Indian Institute of Science Bangalore, India

Topic: Cyber Physical Systems for Industry 4.0: Control of and over Wireless Networks

[View Abstract and Speaker's Biography](#)



Prof. Bijan Bandyopadhyay
Retd. Professor, Systems and Control Engineering, IIT Bombay, Visiting Professor, Department of Electrical Engineering, IIT Jodhpur,

Topic: Modeling and control of large size Nuclear Reactors

[View Abstract and Speaker's Biography](#)



Prof. Radhakant Padhi
HAL Chair Professor, Department of Aerospace Engineering, Indian Institute of Science, Bangalore, India

Topic: Optimal Guidance in India's Chandrayaan-3 Mission and Beyond

[View Abstract and Speaker's Biography](#)



Prof. Lucy Pao
Palmer Endowed Chair Professor, Department of Electrical, Computer, and Energy Engineering, University of Colorado Boulder (CU Boulder), Boulder, Colorado

Topic: Sink or Swim: Control of Floating Offshore Wind Turbines

[View Abstract and Speaker's Biography](#)



Dr. Ananda Basu & Dr. Rita Basu
Professors of Endocrinology, Diabetes and Metabolism, University of Alabama at Birmingham, USA

Topic: Diabetes Simulator: From Birth to Adolescence

[View Abstract](#)



Dr. Krishna D. Kumar
Professor of Aerospace Engineering, and Director of Artificial Intelligence for Aerospace Systems (AIAS) laboratory and Space Systems Dynamics and Control laboratory, Department of Aerospace Engineering, Toronto Metropolitan University (formerly Ryerson University), Canada.

Topic: Innovations in Aerospace Systems – Fault Tolerant Control, Artificial Intelligence, and Predictive Analytics

[View Abstract and Speaker's Biography](#)

Event—II: Seminar on An Overview of Estimators for Spacecraft Attitude and Orbit Control System

An IEEE Bangalore CSS Chapter and ACDOS jointly organized a seminar titled “An Overview of Estimators for Spacecraft Attitude and Orbit Control System” by Dr Philip N K, Outstanding Scientist (Retired), Former Programme Director Satellite Navigation Programme, UR Rao Satellite Centre, Bangalore on 21st December 2023 in virtual mode.

Event—III: International Conference on Computational Intelligence for Green and Sustainable Technologies (ICIGST-2024)

ACDOS technically sponsored the International Conference on Computational Intelligence for Green and Sustainable Technologies (ICIGST-2024), which will be held in the Department of Electrical and Electronics Engineering, Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC), Andhra Pradesh, India, on July 18-19, 2024.



KEYNOTE SPEAKERS:

Dr. Saad Mekhilef, IEEE Fellow, Distinguished Professor, School of Software and Electrical Engineering, Swinburne University of Technology, Australia.

Prof. Bidyadhar Subudhi, IET (UK) Fellow, INAE Fellow, IEEE Senior Member, Dean (Research & Development), Professor, School of Electrical Sciences, Indian Institute of Technology - Goa.

Dr. Swagatam Das, Editor-in-Chief, *Swarm and Evolutionary Computing* (Elsevier), IEEE Senior Member, Head, Electronics and Communication Sciences Unit, Indian Statistical Institute, Kolkata, India.

TECHNICAL PROGRAM COMMITTEE CHAIRS:

Prof. Ramesh Bansal, IET (UK) Fellow, IEEE Senior Member, Professor, Electrical Engineering Department, University of Sharjah, UAE.

Dr. Taha Selim Ustun, Head, Smart Grid Cybersecurity Laboratory, Fukushima Renewable Energy Institute (FREA), National Institute of Advanced Industrial Science and Technology (AIST), Japan.

Dr. S.M. Suhail Hussain, Professor, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

Prof. Radhakant Padhi, IEEE Senior Member, Professor, Aerospace Engineering Department, IISc Bangalore, India.

Paper Submission Guidelines

Simultaneous submissions (papers already submitted to other conferences/journals) are not allowed. All papers must follow the conference template strictly for the submission.

The author's identity such as name, affiliation and e-mail address need to be provided in Microsoft CMT.

- Please do not submit plagiarized papers (Similarity index must be less than 15%).

Paper must be in PDF format and must satisfy following requirements

Paper Length: 6 pages, including figures, tables & references.

No page numbering on the manuscript is allowed.

Registration Fees

Category	Early Bird Rates Up to March 30 th 2024		Standard Rates From March 31 st 2024 To April 15 th 2024	
	IEEE	Non-IEEE	IEEE	Non-IEEE
Indian Author (Academia)	7000	7500	7500	8000
Indian Author (Industry)	9000	9500	9500	10000
Indian Student Author	6000	6500	6500	7000
Indian Non-Author Attendee	3000	3500	3500	4000
Foreign Author	\$250	\$300	\$300	\$350
Foreign Student Author	\$200	\$250	\$250	\$300

Registration includes
Publication Fees, Conference Lunch and Banquet Dinner.

All accepted and presented papers will be submitted to IEEE Xplore for the possible publication (Scopus indexed)

Important Dates:

Paper submission opens: **March 31st, 2023**

Paper submission closes: **December 31st, 2023**

Paper acceptance notification: **March 01st, 2024**

Registration Dates: **March 15th, 2024 - April 15th, 2024**

Last Date of Camera-ready paper submission: **March 15th, 2024 - April 15th, 2024**

Last Date of Registration: **April 15th, 2024**

Conference: **18th - 19th July, 2024**

Organizing Committee for ICCIGST-2024

CHIEF PATRONS:

Dr. C. Nageswara Rao, President, Siddhartha Academy of General & Technical Education, Vijayawada

Sri P. Lakshmana Rao, Secretary, Siddhartha Academy of General & Technical Education, Vijayawada

Sri M. Rajayya, Vice-President, Siddhartha Academy of General & Technical Education and Convener of VRSEC, Vijayawada

PATRON:

Dr. A. V. Ratna Prasad, Principal, VRSEC, Vijayawada

GENERAL CHAIRS:

Prof. Valentina Emilia Balas, Automation and Applied Informatics, Aurel Vlaicu University of Arad, Romania

Prof. Debapriya Das, EE Department, IIT Kharagpur

PROGRAMME CHAIRS:

Dr. P. V. R. L. Narasimham, Head, EEE Department, V R Siddhartha Engineering College, Vijayawada

Dr. D. Venkata Rao, Head, ECE Department, V R Siddhartha Engineering College, Vijayawada

Dr. G.N. Swamy, Head, EIE Department, V R Siddhartha Engineering College, Vijayawada

CONFERENCE CHAIRS:

Dr. Subhojit Dawn, Asst. Prof., EEE Dept., VRSEC, Vijayawada

Dr. K. Dhananjay Rao, Asst. Prof., EEE Dept., VRSEC, Vijayawada

CONTACT:
Dr. Subhojit Dawn, Dr. K. Dhananjay Rao
Conference Chairs, ICCIGST-2024
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**2024 International Conference on
Computational
Intelligence for
Green & Sustainable
Technologies
(ICCGST-2024)**

Technically Co-Sponsored by

IEEE Hyderabad Section

Conference ID: 60741

IEEE Guntur Subsection

Organized by
Department of
Electrical & Electronics Engineering
In Association with
**Electronics & Communication Engineering
and
Electronics & Instrumentation Engineering**

18th - 19th July 2024

www.iccgst.com


**VELAGAPUDI RAMAKRISHNA
SIDDHARTHA ENGINEERING COLLEGE**
(AUTONOMOUS)
(Sponsored by Siddhartha Academy of General & Technical Education)
VIJAYAWADA

Welcome to ICCIGST-2024

The conference plays a vital role to stir the grey cells to bring about the latest and the most innovative recent areas of researches in the field of advanced and modern application of Computational Intelligence in Green and Sustainable Technologies. In which the researchers' zeal for innovation and passion are tested to the limit. The conference also aims to bring people together from various field but having the common interest and passion for research in further advancement in the field of intelligent systems. Such an amalgamation of various research oriented minds will bear prolific results in future, which might lead to further advancements in future in such an era where anything is possible.

International Conference on Computational Intelligence, Green and Sustainable Technologies (ICCGST-2024), will be held in Department of Electrical and Electronics Engineering, Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC), Andhra Pradesh, India, during 18th-19th July, 2024.

About VRSEC

Velagapudi Ramakrishna Siddhartha Engineering College (VRSEC) is the first Private Engineering College in the united state of Andhra Pradesh (AP) and was established in the year 1977. VRSEC is offering 9 UG Programmes (B.Tech) and 5 PG Programmes (M.Tech) in Engineering with various specializations. In addition, the institute is offering PG Programmes of Masters in Business Management (MBA) and Masters in Computer Applications (MCA). 6 UG programs in engineering are accredited by NBA in Outcome Based Education Format (OBE). Autonomous since 2006 and extended for 10 years, upto 2027-28 without visit to the collage, first in Andhra Pradesh. Ranked below 200 by NIRF, GOI, successively for the last five years and adjudged as one of the best engineering college in the country by national survey agencies such as India Today and Data Quest. VRSEC was accredited by NAAC with 'A+' grade and certified with ISO 9001:2015.

The institute has totally 326 faculty members with 155 Doctrates from various premier institutions. Six engineering departments are recognized as Research Centres by JNTUK, Kakinada. The faculty and students are regularly publishing their research articles in indexed journals and conferences across the globe. The institute has strong industry partnership and signed 60 MOUs with various organizations. The institute has established various advanced Labs and Center of Excellence in collaboration with industries like Siemens, DASSAULT Systems, IBM, Oracle, Cisco, ADRIN-ISRO, National Instruments, Avantel and University of West Alabama.

Technical Tracks of ICCIGST-2024

Track 1: Smart Optimization & Computing

- ✓ Artificial Intelligence
- ✓ Machine Learning Techniques
- ✓ Cloud Computing & Fog Computing
- ✓ Wide Area Monitoring, Protection and Network Control
- ✓ Neural network and Fuzzy Computation
- ✓ Evolutionary Algorithms
- ✓ Intelligent and Hybrid System
- ✓ Cyber Security
- ✓ Block Chain

Track 2: Smart, Green and Sustainable Technologies

- ✓ Micro grid/Smart Grid Control
- ✓ Renewable Energy Sources and Technology
- ✓ Power, Control and Energy Systems
- ✓ Recent Innovations in Design Engineering and Smart City Infrastructure
- ✓ Sustainable Technology for Aerospace Engineering
- ✓ Electric Vehicles
- ✓ Converter Topologies
- ✓ Energy Storage
- ✓ Green Energy Issue
- ✓ V2G and G2V Technology and Challenges
- ✓ Demand Side Management

Track 3: Biomedical and Instrumentation

- ✓ Advanced Sensors
- ✓ Industry 4.0
- ✓ Virtual Instrumentation
- ✓ Health Care Systems
- ✓ Intelligent Control Systems
- ✓ Process Optimization and Control
- ✓ Robotics & Control
- ✓ Analytical Instrumentation
- ✓ Biomedical Signal & Image Processing
- ✓ Industrial Automation & Instrumentation

Track 4: Communication and Signal Processing

- ✓ Embedded Systems and Automation
- ✓ Multimedia and Applications, 5G and 6G Technology
- ✓ Network Protocols, Mobile Computing
- ✓ Mobile Ad-hoc Networks, Mobile Agents
- ✓ Cross-layer Design/Optimization, Design and Performance Evaluation
- ✓ Traffic Control, Wireless Systems
- ✓ MU-MIMO Systems
- ✓ Optoelectronics and Optical Communication
- ✓ Image Processing, Computer Vision, Bio-image Processing, Audio/video Processing
- ✓ Data Processing, Estimation and Identification, Remote Sensing, Information Fusion
- ✓ Brain Computer Interface
- ✓ Signal Transforming and Filtering
- ✓ Digital System Design and Structures

Track 5: Computing Devices and Circuits

- ✓ Advanced CMOS, Post-CMOS, Quantum Computing
- ✓ Cryogenic Circuits
- ✓ Novel Devices, Novel Computing Paradigms
- ✓ Tunnel FET, Negative Capacitance FET
- ✓ 2D Materials, Nanowires, Quantum Dots
- ✓ Topological Insulators, Phase Transitions Transistors
- ✓ Qubit Devices for Quantum Computing Enablement
- ✓ Cryogenic Circuits
- ✓ Magnetic Logic, Spintronics, Plasmonics

Event—IV: IFAC Sponsored 3-day Workshop on Wonders of Control Engineering via Drone

October 2024

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Flying and Electric Vehicles

The workshop “Wonders of Control Engineering via Drone Flying and Electric Vehicles” is to be conducted at Centurion University of Technology and Management (CUTM) at Bhubaneswar in collaboration with GTIDS, IISc Bangalore, and IIIT Bangalore from 24 October to 26 October 2024.






Centurion UNIVERSITY
Shaping Lives... Empowering Communities...

IFAC Sponsored
Three-day Workshop on
Wonders of Control Engineering
via Drone Flying and Electric Vehicles
Date: 24-26 October 2024

It is a three-day program designed for the senior high school (pre-undergraduate) students to introduce them the basics of control systems and its wonderful applications. Gram Tarang Inclusive Development Services (GTIDS) is the social entrepreneurial outreach initiative of CUTM. It owns the East India's first and only DGCA Certified Remote Pilot Training Organization (RPTO). Through interactive sessions and hands-on activities, participants will gain an understanding on the theory and practical applications of control engineering, taking drone and electric vehicle operations as a platform to learn.

About Workshop

The workshop "Wonders of Control Engineering via Drone Flying and Electric Vehicles" is to be conducted at the Centurion University of Technology and Management (CUTM) at Bhubaneswar in collaboration with GTIDS, IISc Bangalore and IIIT Bangalore.

About CUTM:

Centurion University is a leader in "Skill Integrated Higher Education" has recognition as Grade A+ University by NAAC. This university is duly recognized as a pioneer in 'Skill Integrated Higher Education'. Centurion University has both built and participated in building eco-systems that include and integrate the community around its campuses and beyond, industry, entrepreneurs and other education institutions. Centurion aims to be a premier human resource development hub, offering industry-relevant education, skill development, entrepreneurship, and technology. Its education and training delivery approach is:

Skill Integrated and Employability Linked Teaching/Learning Process
Focuses/Leverages Industry and Community Partnerships
Create/co-creates Enterprises

About ACODS

ACODS is a biennial flagship conference of the Automatic Control and Dynamical Optimization Society (ACDOS), which is an Indian NMO of IFAC. ACODS 2024 aims to bring together the international community of researchers and practitioners from academia, industry, and research laboratories to disseminate new developments and advances in the control and optimization of dynamical systems. The theme of the conference is broad enough to encompass both theory and applications.

About IFAC:

The International Federation of Automatic Control was founded in September 1957. Our multinational federation is concerned with automatic control and its representation in the fields of engineering, science and the impact of control technology on society. Join us in challenging the new era in electronic communication, publication and exchange of ideas.

Contact Details:

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 Mobile: 9778118876/7978941474/8917455161
 University Website: www.cutm.ac.in

Organizers:

Prof. Sudhansu Kumar Samal, Asso. Professor, EEE
 Prof. R C Mohanty, Professor, Dept. of Mechanical
 Prof. Sujata Chakravarty, Professor, Dept. of CSE



Approach to Venue

From BBSR airport ≈ 30 km
 From Bhubaneswar Railway Station ≈ 32 km
 From Khordha Road Railway Station ≈ 5 km
From Bhubaneswar Airport



From Bhubaneswar Railway Station



***Registration is Mandatory**

Register Online on/before	01-10-2024
Registration Fees	1000 INR 50% Discount for CUTM Students
Registration Link	https://docs.google.com/forms/d/1gPSTUOIAK7Rz7bKEIuqKsJadVEdsJY0rEU4MUbs/edit

***Free Hostel facilities for outside participants**

***No Transport Allowances to Participants**

***The CUTM will provide Local Transportation Support on a demand basis with prior information**

***Registration Link/QR Code for Institutions/Colleges**



REGISTRATION

***All Registered Participants will get a Certificate**

24*7 local transportation available from nearby Railway stations (Taxis and Buses)

Section C: Upcoming Events/Activities 2024—2025

There are two events that is planned for the future.

1. ACDOS AGM and One-day Workshop on 26th October 2024.
2. IFAC-sponsored graduate school on advanced sliding mode control at IIT Jodhpur from 5 December – 10 December 2024

Event—I: ACDOS AGM and 1-day Workshop

ACDOS AGM, along with a 1-day workshop containing several talks on control and optimization, will be held on 26th October 2024 at CUTM Bhubaneswar Campus.

						
One-day Workshop on “Advances in Controls & Optimization Applications” Joint Workshop of ACDOS (Automatic Control & Dynamic Optimization Society) & IEEE-Bhubaneswar Venue: Auditorium, CUTM Campus, Centurion University of Technology & Management, Bhubaneswar, India. Date: 26-Oct-2024 (Saturday) Time: 9:00 Hrs to 17:30 Hrs (Indian Standard Time) Venue: Location						
ACDOS (www.acdos.org) The Automatic Control & Dynamic Optimization Society (ACDOS), established in 2011, ACDOS is also a proud National Member Organization (NMO) of the International Federation of Automatic Control (IFAC - www.ifac-control.org). IFAC founded in September 1957, is a multinational federation concerned with automatic control and its representation in the fields of engineering, science and the impact of control technology on society. ACDOS started with a noble objective to promote automatic control and dynamic optimization discipline in academia and industry across India. The society organizes international conferences (ACDOS biennial conference series), technical workshops regularly in order to promote interaction between industry and academia. The society also participates in curriculum development for graduate and under-graduate studies in addition to facilitating productive research in this field. The society volunteers to honour eminent persons excelled in this field in industry and academic circles. IEEE-Bhubaneswar Subsection (https://site.ieee.org/bhubaneswar/) started in Nov-2015 works towards advancing technical knowledge along IEEE mandated areas.						
IEEE-Bhubaneswar Subsection & ACDOS are happy to organize and invite you to 1-day Joint Workshop @CUTM-Bhubaneswar campus on 26-Oct-2024 Saturday. <table border="0"> <tr> <td style="vertical-align: top;"> ❖ Program: 09:00-09:15 Hrs: Arrival & Welcome, Networking 09:15-09:45 Hrs: Inaugural Function* (Prof D Acharya; Shri HK Rath) 09:45-11:00 Hrs: Sessions-I (Keynote Presentation - Prof Radhakant Padhi) 11:00-11:15 Hrs: Tea/Coffee Break 11:15-13:15 Hrs: Session-II (Technical Presentations) 13:15-14:15 Hrs: Lunch-break 14:15-15:15 Hrs: Concluding Function** (Dr Aishwarya Biswal, Prof Achary) 15:15-15:30 Hrs: Tea/Coffee & Departure 15:30-17:00 Hrs: ACDOS AGM (Hybrid-mode) #Note: Participants are welcome to also attend ACDOS AGM during 15:00-17:00 Hrs. to know more about ACDOS, Activities & also join ACDOS (membership is FREE). </td> <td style="vertical-align: top;"> Esteemed Guests: Prof D Acharya (EX-Director IIT-Kharagpur; President – INAE Bhubaneswar Chapter); Shri HK Ratha (Chair-IEEE Bhubaneswar); Dr Aishwarya Biswal (Director-BPCL) Keynote Speaker: Prof Radhakant Padhi, IISc-Bangalore (Topic: Mission Autonomy in Aerospace: Role of Advanced Control) The Experts Speakers (Academia & Industry): - Prof Faruque Ali, Professor, IIT-Madras, Chennai (Topic: Reduced order models for dynamics of bladed rotor systems) - Dr Ankit Deshmukh, IIT-Bhubaneswar (Topic: Continuous Time Periodic Controllers) - Dr Jayesh Barve, GE Vernova ARC, Bangalore (Topic: SolarPV-Hybrid Powergen System for Rural & Urban micro-Grid) </td> <td style="vertical-align: top;"> Important Dates: Registration Deadline: 20-Oct-2024 (Note: Registration is FREE, but is required to help organize logistics at the venue.) Registration Form - </td> </tr> </table>				❖ Program: 09:00-09:15 Hrs: Arrival & Welcome, Networking 09:15-09:45 Hrs: Inaugural Function* (Prof D Acharya; Shri HK Rath) 09:45-11:00 Hrs: Sessions-I (Keynote Presentation - Prof Radhakant Padhi) 11:00-11:15 Hrs: Tea/Coffee Break 11:15-13:15 Hrs: Session-II (Technical Presentations) 13:15-14:15 Hrs: Lunch-break 14:15-15:15 Hrs: Concluding Function** (Dr Aishwarya Biswal, Prof Achary) 15:15-15:30 Hrs: Tea/Coffee & Departure 15:30-17:00 Hrs: ACDOS AGM (Hybrid-mode) #Note: Participants are welcome to also attend ACDOS AGM during 15:00-17:00 Hrs. to know more about ACDOS, Activities & also join ACDOS (membership is FREE).	Esteemed Guests: Prof D Acharya (EX-Director IIT-Kharagpur; President – INAE Bhubaneswar Chapter); Shri HK Ratha (Chair-IEEE Bhubaneswar); Dr Aishwarya Biswal (Director-BPCL) Keynote Speaker: Prof Radhakant Padhi, IISc-Bangalore (Topic: Mission Autonomy in Aerospace: Role of Advanced Control) The Experts Speakers (Academia & Industry): - Prof Faruque Ali, Professor, IIT-Madras, Chennai (Topic: Reduced order models for dynamics of bladed rotor systems) - Dr Ankit Deshmukh, IIT-Bhubaneswar (Topic: Continuous Time Periodic Controllers) - Dr Jayesh Barve, GE Vernova ARC, Bangalore (Topic: SolarPV-Hybrid Powergen System for Rural & Urban micro-Grid)	Important Dates: Registration Deadline: 20-Oct-2024 (Note: Registration is FREE, but is required to help organize logistics at the venue.) Registration Form -
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Organizers: Dr Jayesh Barve, President ACDOS (IFAC India-NMO) (GE Vernova Advanced Research - Bangalore Email: barve.jayesh@ieee.org)		Prof. Radhakant Padhi, Professor, IISc-Bangalore (Also, Director-Operations, ACDOS) Prof. Sudhansu Kumar Samal, Asso. Professor, EEE, CUTM-Bhubaneswar (Email: sudhansu.samal@cutm.ac.in)				
About CUTM-Bhubaneswar: Visit https://cutm.ac.in/campuses/bhubaneswar/		Join ACDOS as a member (FREE): https://www.acdos.org/online_reg.php				

Event—II: IFAC-sponsored graduate school on advanced sliding mode control

The Graduate School on Advanced Sliding Mode Control, sponsored by IFAC, is to be held at IIT Jodhpur, from December 5-10, 2024. It provides an opportunity for young researchers and students to participate and interact with leading researchers in the variable structure and sliding mode control.



Graduate School on Advanced Sliding Mode Control

Sponsored by International Federation of Automatic Control

Venue:

Indian Institute of Technology Jodhpur, India

Date: December 05-10, 2024



Chief Patron:

Prof. Avinash K. Agarwal,
Director, IIT Jodhpur

Organizing Committee:

- Prof. B. Bandyopadhyay,
(Chair) IIT Jodhpur
- Dr. Jayesh Barve, GE Vernova
- Prof. Deepakumar M. Fulwani,
IIT Jodhpur
- Dr. Abhisek K. Behera, IIT
Roorkee

Contact:

Prof. B. Bandyopadhyay
Department of Electrical Engg.
IIT Jodhpur, India
Tel: +91 9619877889
Email: bijnan@iitj.ac.in

Registration Dates:

Start: 01/10/2024
End: 30/11/2024

Registration Fees:

Student: 5,000 INR
Industry: 12,000 INR
Academic: 8,000 INR
Young Women: 3,000 INR
(Below 30 Years)

Bank Details:

Account Name: Research &
Development IIT Jodhpur
Account No: 01421000144666
Bank: HDFC
Address: HDFC Bank Limited, 57
B, 9th Chopasani Road, Jodhpur
342003, Rajasthan
IFSC Code: HDFC0000142

The Graduate School on Advanced Sliding Mode Control, sponsored by IFAC, is to be held at IIT Jodhpur, from December 5-10, 2024. It provides an opportunity for young researchers and students to participate and interact with leading researchers in the variable structure and sliding mode control.

IFAC: (www.ifac-control.org/) The International Federation of Automatic Control was founded in September 1957. IFAC multinational federation is concerned with automatic control and its representation in the fields of engineering, science and the impact of control technology on society. Join us in challenging the new era in electronic communication, publication and exchange of ideas.

ACDOS: (www.acdos.org) Automatic Control & Dynamic Optimization Society (ACDOS) was established in the year 2011 with a noble objective to promote automatic control and dynamic optimization discipline in academia and industry across India. The society aims to host international conferences and technical workshops regularly in order to promote close interaction between industry and academia. The society also participates in curriculum development for graduate and under-graduate studies in addition to facilitating productive research in this field. The society volunteers to honor eminent persons who excelled in this field in industry and academic circles. ACDOS is also a proud National Member Organization (NMO) of the IFAC.

Speakers:

Prof. Sarah K. Spurgeon, UCL, UK	Prof. S. Janardhanan, IIT Delhi, India
Prof. Antonella Ferrara, Univ. of Pavia, Italy	Prof. Deepakumar M. Fulwani, IIT Jodhpur, India
Prof. Bijnan Bandyopadhyay, IIT Jodhpur, India	Dr. Shyam Kamal, IIT (BHU) Varanasi, India
Prof. Jaime A. Moreno, UNAM, Mexico	Dr. Sohom Chakrabarty, IIT Roorkee, India
Prof. Andrez Bartoszewicz, Lodz Univ. of Tech., Poland	Dr. Abhisek. K. Behera, IIT Roorkee, India

Topics:

Sliding Mode Control and Observation	Free-Will Arbitrary Time Sliding Mode Control
Optimization Based Sliding Mode Control	Event-Triggered Sliding Mode Control
Discrete-Time Sliding Mode Control	Applications to Robotics, Energy Systems, Transportation Systems
Higher Order Sliding Mode Control	
Lyapunov Based Design of Sliding Mode Control	

- Registration is on first-come first service basis.
- Free accommodation and return travel support (III-Tier AC train from place of work to Jodhpur) for young women participants (proof of date of birth is required).
- The list of eligible Young Women participants will be informed by email.
- Accommodation will be provided in the IIT Jodhpur campus on payment basis (subject to availability).
- Please send the copy payment details and age proof along with registration form by email to bijnan@iitj.ac.in.
- For any query, kindly email to either bijnan@iitj.ac.in or abhisek@ee.iitr.ac.in with subject Advanced Graduate School on SMC 2024.

Section D: ACDOS Budget

The following are the details of the ACDOS 2023—2024 budget approved by auditor Hiranmayi Nitish and Company.

AUTOMATIC CONTROL AND DYNAMIC OPTIMIZATION SOCIETY

INCOME AND EXPENDITURE ACCOUNT FOR THE PERIOD 01-04-2023 To 31-03-2024

Amount 2022-23	Expenditure	Amount 2023-24	Amount 2022-23	Income	Amount 2023-24
1,02,000	Salary to secretary	1,20,000	1,18,125	Interest on FD	1,22,062
35,100	Rent	42,900	2,455	Savings Bank Interest	8,445
-	Printing and Stationery	5,000	-	ACODS-Event income	21,100
14,500	Professional fees	10,368	65,876	Sponsorship Fees	-
15,000	Audit Fees	15,000	1,47,623	Excess of Expenditure Over Income	1,91,435
-	Cheque book charges	-	-	-	-
15,000	Website maintenance charges	1,02,301	-	-	-
1,36,446	Subscription fees(IFAC)	-	-	-	-
1,072	Bank Charges	-	-	-	-
-	Honorarium paid	12,000	-	-	-
14,961	GST payment	-	-	-	-
-	Rates & Taxes	35,473	-	-	-
3,34,079		3,43,042	3,34,079		3,43,042

For AUTOMATIC CONTROL AND DYNAMIC OPTIMIZATION SOCIETY

For Hiranmayi Nitish & Co
Chartered Accountants



HIRANMAYI VINAY
(Partner)
Membership No. 206173

Place: Bangalore
Date: 20/09/2024
UDIN: 242061738KCVY7872

[Signature]

AUTHORISED SIGNATORIES
ACDOS
Treasurer

AUTOMATIC CONTROL AND DYNAMIC OPTIMIZATION SOCIETY

RECEIPTS AND PAYMENT ACCOUNT FOR THE PERIOD 01-04-2023 TO 31-03-2024

Amount 2022-2023	RECEIPTS	PAYMENT		Amount 2023-2024
		Amount	2022-2023	
5,895	Opening Balance:		1,02,000	1,20,000
65,382	Cash	5,898	35,100	42,900
2,455	Bank	3,87,485	-	5,000
5,82,980	Bank Interest	8,445	29,500	25,368
-	FD Maturity	2,48,412	1,36,446	-
-	ACODS- Event Income	21,100	-	-
4,870	FD Interest	-	15,000	1,02,301
65,876	Sponsorship Fees	-	1,072	-
		-	-	12,000
		-	14,961	-
		-	3,87,485	3,57,873
			5,898	5,898
7,27,458		6,71,340	7,27,462	6,71,340

For AUTOMATIC CONTROL AND DYNAMIC OPTIMIZATION SOCIETY

For Hiranmayi Nitish & Co
Chartered AccountantsHIRANMAYI VINAY
(Partner)

Membership No. 206173

Place: Bangalore

Date: 20/09/2024

UDIN: 24206173BKZVY7872

AUTHORISED SIGNATORIES

ACDOS
Treasurer

AUTOMATIC CONTROL AND DYNAMIC OPTIMIZATION SOCIETY

Balance Sheet as on 31-03-2024

31-03-2023	LIABILITIES	31-03-2024	31-03-2023	ASSETS	31-03-2024
	Fund Account:			Current Asset: Loans & Advances	
25,39,489	Opening Balance	23,91,866		Cash with Bank	3,57,873
-1,47,623	Add: Excess of Income over Expenditure	-1,91,435	3,87,485	Savings account	18,05,591
	Less: Income Tax paid		19,44,149	FD With Canara bank	5,898
23,91,866	Closing balance		5,898	Cash in hand	
	Current Liabilities and Provisions			Advances ,Deposits and Receivables	
15,000	Audit fees payable	15,000	10,000	Rent Deposit	10,000
			7,428	TDS receivable 2020-21	
			28,045	TDS receivable 2019-20	
			12,536	TDS receivable 2021-22	12,536
			11,326	TDS receivable 2022-23	11,326
				TDS receivable 2023-24	
				Total	22,15,431
24,06,866	Total	22,15,431	24,06,866		22,15,431

For AUTOMATIC CONTROL AND DYNAMIC OPTIMIZATION SOCIETY

For Hiranmayi Nitish & Co
Chartered AccountantsHIRANMAYI VINAY
(Partner)
Membership No. 206173Place: Bangalore
Date: 20/09/2024
UDIN: 24206173BKCVY7872

AUTHORISED SIGNATORIES

ACDOS
Treasurer

SECTION E. Young Professionals Activity (YPA)

The group of **Young Professionals Activity (YPA)** is created to help young professionals to enhance their knowledge, evaluate their career goals, polish their professional image as well as connect them to professional networks.

The activity done by this group is the following:

1: One-Week Workshop on “Design of Electric Vehicles” (DEV-2023)

2nd – 6th November 2023

Organized by the Department of Mechatronics, Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE), Manipal, India And Solar Electric Vehicle Championship Team in Association with **YPA Group, ACDOS (An NMO of IFAC)** and IAC Electrical Stream, MIT Manipal

Short introduction: This workshop offers a unique opportunity to acquire comprehensive knowledge and strengthen skills in the field of designing electric vehicles.

Coordinated by: **Dr. Umesh Kumar Sahu, MIT Manipal**

MANIPAL
Academy of Higher Education

One Week Workshop
on
Design of Electric Vehicles
(DEV-2023)
02nd to 06th November 2023

Organized by
Department of Mechatronics
Manipal Institute of Technology, MAHE, Manipal, Karnataka, India
And
Solar Electric Vehicle Championship Team
In Association with YPA Group, ACDOS (An NMO of IFAC) and
IAC Electrical Stream, MIT Manipal

About the Mechatronics
Department, MIT Manipal
The Department of Mechatronics established in the year 2000 offers undergraduate (B.Tech.) in Mechanical Engineering (B.Tech.) in Industrial Automation and Robotics and Ph.D. programs in Mechatronics. It has state-of-art research facilities to support academics and advanced research. Department is well equipped with laboratories set up in collaboration with Bosch Research India Pvt. Ltd. ABB, Singapore, IIT Bombay, and Beckhoff Automation India Pvt. Ltd. along with Texas Instruments.

About the SEVC
Solar Electric Vehicle Championship (SEVC) is conducted by the collaboration with two societies Indian Institute of Innovation - Product Development Societies (IIPS) and Society for Science, Technology, Management and Humanities (SSTMH).

Organizing Chairman
Dr. D. V. Kaneth, Professor & Head, Dept. of Mechatronics, MIT Manipal

Workshop Coordinator's
Dr. Vijay Babu Korebhole, MIT Manipal
Dr. Sukar Jaiswal, MIT Manipal
Dr. Umesh Kumar Sahu, MIT Manipal
Dr. Kiran Desai, MIT Manipal

Registration Fee

Participants	Male	Non-Male
Participating	₹10,000	₹10,000
Guest	₹15,000	₹15,000
Faculty	₹20,000	₹20,000

Registration Fee Includes:

1. Workshop kit, material, laptop and Pen.
2. Certificate by SEVC and MIT Manipal.

Registration Details: (After Registration)
Email: sevc@mitmanipal.edu.in and ACDOS@mitmanipal.edu.in
Scan QR Code on: www.mitmanipal.edu.in or www.acdos.org

Beneficial for teams working for SAAR, Sustainable, SUPA For Skill Improvement in the domain of Electric Vehicles, Design standards in the Industry

Scan to Register

ACDOS **IFAC**
INTERNATIONAL FEDERATION OF AUTOMATIC CONTROL

2: Guest talk on “Electric Drives for Automation” by Dr. G. Bhuvaneswari, Professor, EEE Dept. Mahindra University, Hyderabad (Former Professor, Electrical Dept. IIT Delhi)

7th November 2023

Organized by Department of Mechatronics, Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE), Manipal, India in Association with **YPA Group, ACDOS (An NMO of IFAC)**.

Co-coordinated by: **Dr. Umesh Kumar Sahu, MIT Manipal**

MANIPAL
MANIPAL INSTITUTE OF TECHNOLOGY

Department of Mechatronics
Manipal Institute of Technology, Manipal
Cordially invites you to
Guest Talk
on
Electric Drives for Automation

Prof. G. Bhuvaneswari
Professor in EEE Department,
Mahindra University
(Former Professor,
Electrical Department, IIT Delhi)

Date: 07th November 2023, Timing: 10:45 AM
Venue: KEF Auditorium, KEF R&D Centre, MIT, MAHE

Organizing Chairman:
Dr. D. V. Kamath,
Professor and Head, Dept. of Mechatronics, MIT, Manipal

Faculty Coordinators:
Dr. Vijay Babu Koreboina, MIT, Manipal
Dr. Niraj Kumar Dewangan, MIT, Manipal

ACDOS **G2** **IFAC** **INSTITUTION'S INNOVATION COUNCIL**

About the Speaker
Prof. G. Bhuvaneswari has been working as a Professor in Mahindra University's EEE Department since March 2021. Before this, she was working as a faculty member in the Indian Institute of Technology Delhi from August 1997 to March 2021. She graduated with a B.E. degree from College of Engg. Guindy, Anna University Madras in 1985 and with M.Tech. & Ph.D. degrees (in 1988 and 1992, respectively) from IIT Madras. After completing her Ph.D., she worked as a Lecturer in the Dept. of EEE, College of Engg. Guindy, Madras for over one year; then, she worked in the Electrical Utility Company ComEd, Chicago Illinois USA for about 3 years. After this, she returned to India to join IIT Delhi. Her areas of specialization are Power Electronics, Electrical Machines, Drives and all their application areas like power supply, power quality, HVDC, electric drives, electric vehicles, battery charging and renewable energy. She undertook sponsored and consultancy projects worth of Rs. 7 crores from various organizations like DRDO, DST, CSIR, MHRD, KVAFSU, BHEL and Copper-alliance. She has graduated 15 PhD students and 75 Master's students. She is a Fellow IEEE-USA, Institution of Engineering & Technology-UK, Institution of Engineers-India, Indian National Academy of Engineering and IETE-India. She is the recipient of the IEEE Wanda-Rodger Pioneer in Power Award in 2018, IEEE Outstanding Power Engineer Award from IEEE Delhi section in 2016 and Bhaskar B. Bora award from IETE in 2011. She was the founder coordinator of Sumant Sinha Renew Centre of Excellence in Energy and Environment in IIT Delhi from Dec 2016-April 2019. She had been playing an active role in IEEE Delhi section; she has been the Chair of IEEE PELS-IES Delhi Chapter during 2010-11 and 2018-19. Under her stewardship, this chapter received the Best Chapter Award in 2011 from the IEEE Headquarters. She is currently the Associate Editor of the IEEE Journal of Emerging and Selected Topics in Power Electronics, IEEE Journal of Emerging and Selected Topics in Industrial Electronics and the Transactions of the IAS. She has over 200 publications in National and International journals and peer-reviewed conferences.



3: SOLAR ELECTRIC VEHICLE CHAMPIONSHIP (SEVC-2024)

27th to 31st March 2024

Organized by Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE), Manipal, India in collaboration with the Coimbatore Society of Racing Minds (CSRM).

Knowledge Partner: ACDOS

Short introduction: SEVC (Solar Electric Vehicle Championship) is a national level electric vehicle design competition aimed at training engineering students with practical knowledge of recent technologies in engineering domain.

Co-ordinated by: Dr. Umesh Kumar Sahu, MIT Manipal

MANIPAL
MANIPAL INSTITUTE OF TECHNOLOGY

SOLAR ELECTRIC VEHICLE CHAMPIONSHIP (SEVC-2024)
27th to 31st March 2024

Organized by: Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE), Manipal, India in collaboration with the Coimbatore Society of Racing Minds (CSRM).

Co-ordinated by: Dr. Umesh Kumar Sahu, MIT Manipal

ACDOS **G2** **IFAC** **INSTITUTION'S INNOVATION COUNCIL**

About SEVC
SEVC is a national level electric vehicle design competition aimed at training engineering students with practical knowledge of recent technologies in engineering domain. It is an interdisciplinary team of engineering students and professionals, design and build an electric vehicle. SEVC is conducted by the collaboration with two academic institutions: Manipal Institute of Technology (MIT) and Coimbatore Society of Racing Minds (CSRM).

SEVC SCHEDULE

Registration	Integration	Pre-Event Activities	Final Event
27 th March 2024	28 th March 2024	29 th March 2024	30 th March 2024
Registration	Integration	Pre-Event Activities	Final Event
27 th March 2024	28 th March 2024	29 th March 2024	30 th March 2024
Registration	Integration	Pre-Event Activities	Final Event
27 th March 2024	28 th March 2024	29 th March 2024	30 th March 2024
Registration	Integration	Pre-Event Activities	Final Event
27 th March 2024	28 th March 2024	29 th March 2024	30 th March 2024

