



IEEE CASS Opportunities

Ricardo Reis

Circuits and Systems – Engineering Behind our Digital Lives

Circuits and Systems is the **Ubiquitous, Transversal, Multidisciplinary** and **Enabler Technology** to Meet the Challenges of the 21st Century

Extract information from physical events (Monitoring)

Interaction with the environment (Actuation)

Storage, smart processing and computation (Artificial Intelligence)

Any where, any time connectivity (Communications)

Energy-aware technologies and more... (Sustainability)





IEEE Circuits and Systems Society

Field of Interest

The IEEE Circuits and Systems Society promotes the advancement of the **theory, analysis, design, tools, and implementation of circuits and systems**. The field spans their theoretical foundations, applications, and architectures, as well as circuits and systems implementation of algorithms for signal and information processing.

Through high quality publications, conferences, technical and educational activities, and leadership opportunities, CASS

- cultivates advances in circuits and systems

- keeps members abreast of the latest information and technologies

- gives members the opportunity to influence the future of CAS**

CASS at a Glance

10,731
**Members and
Affiliates**

120+
Countries

2,129
**Student
Members**

10
**Geographic
Regions**

133
Sections

118 (59 + 59)
Chapters

88
**Student
Branch Chapters**

Affinity Groups:
YP, WIE, DEI

7
IEEE Councils

4 (+2)
**IEEE Technical
Communities**

16
**Transactions,
Journals, and
Magazines**

2,5 + million
**Downloads
(only fully
sponsored)**

51,000 +
**Citations
(only fully
sponsored)**

35
**Conferences
10,000 +
Participants**

144,000 +
**views
ISCAS 2021**

CASS in Latin America (R9)



Membership Geographic Distribution



Total members (without affiliates)

	R1-6	R7	R8	R9	R10	Total
2022	3268	296	2242	491	4265	10562
2021	3385	311	2266	555	4149	10666
2020	3548	322	2300	538	3819	10527

Student members

	R1-6	R7	R8	R9	R10	Total
2022	241	37	289	201	1396	2164
2021	263	42	312	239	1382	2238
2020	294	52	332	219	1191	2088



R 10

36

Region



Some Membership Benefits

Conferences

Publications

Technical Activities

Regional Activities and Membership

Continuous Education

Collective Initiatives

Conferences

The IEEE CAS Society sponsors technical conferences, symposia, and workshops to provide networking opportunities with peers from around the world, and exchange high-quality, rigorously peer-reviewed scientific and technological knowledge.

Global Flagship Conferences:

Int. Symposium on Circuits and Systems (ISCAS)

Regional Flagship Conferences

Premier Conferences

Int. Conf. on Artificial Intelligence Circuits and Systems (AICAS)

Int. Symp. on Integrated Circuits (ISICAS). J2C event

IEEE Biomedical Circuits and Systems Conference



R1-7	MWSCAS
R7-R8	NEWCAS
R8	ICECS
R9	LASCAS
R10	APCCAS

PUBLICATIONS

In addition to benefits offered for IEEE membership, CASS offers:

Access to the new IEEE Open Journal of Circuits and Systems (electronic)

Free CAS Magazine (electronic)

Free JETCAS (electronic)

Free CAS Society Newsletter (electronic)

Free RFIC Virtual Journal (electronic)

Free RFID Virtual Journal (electronic)

Free access to CAS Society Conference Digital Library

Free access to the **NEW CAS Society Resource Center**

Student members receive free access to all CASS journals

IEEE Transactions on Circuits and Systems I

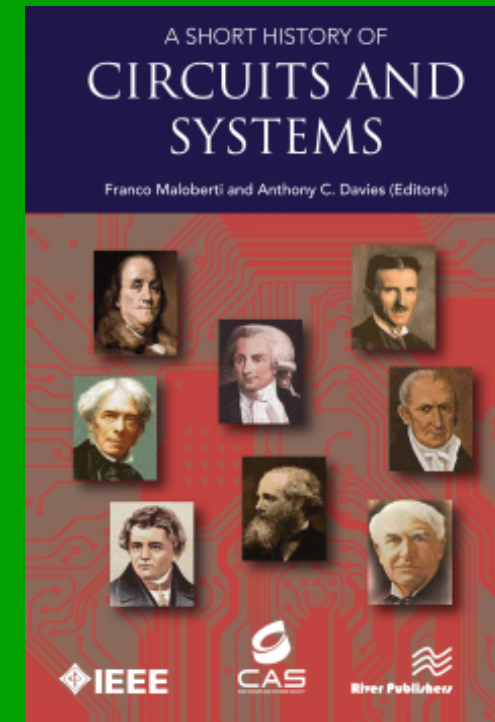
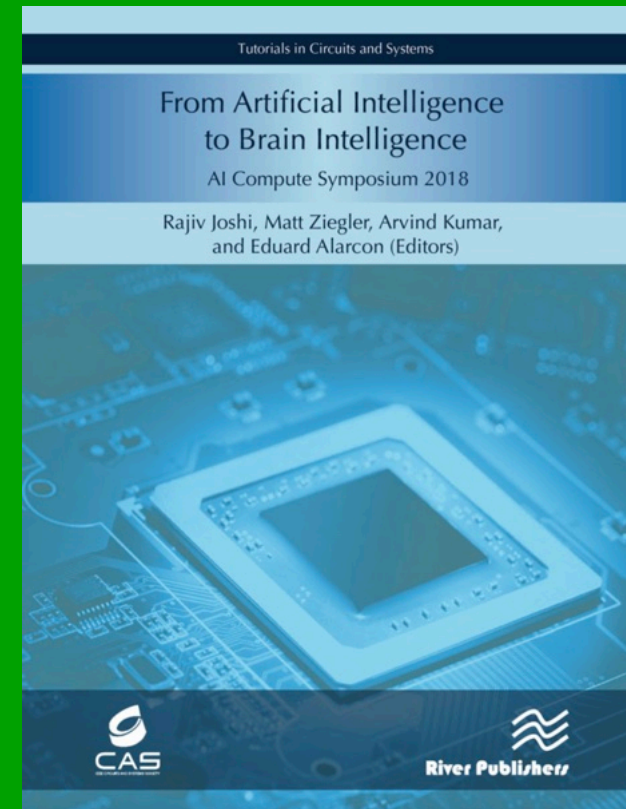
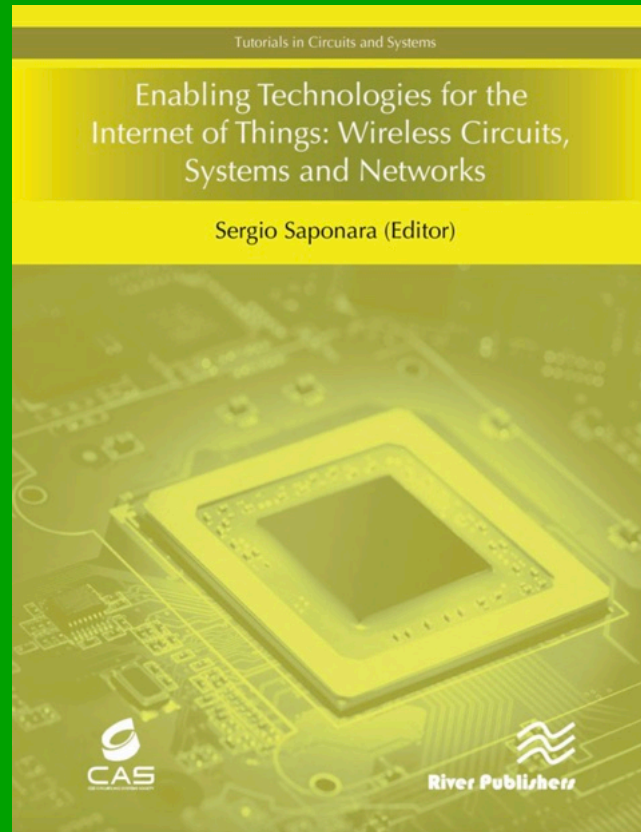
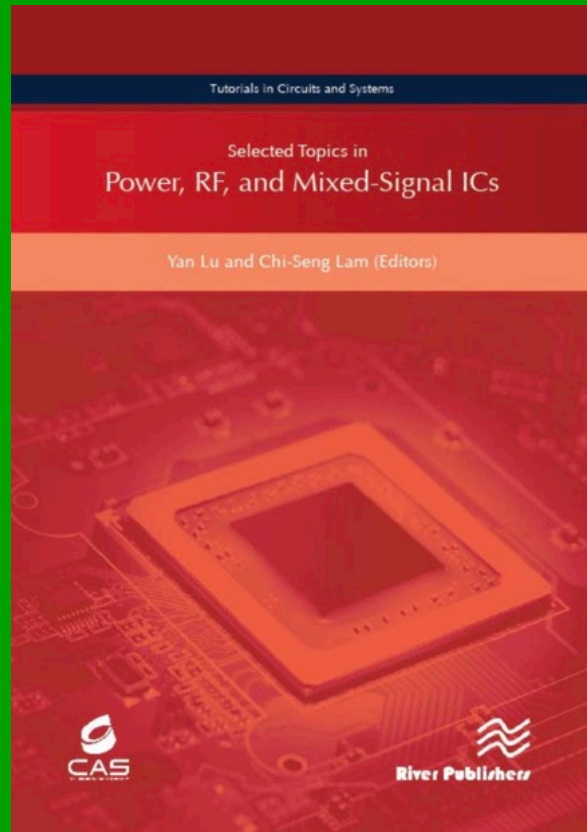
IEEE Transactions on Circuits and Systems II





CASS eBooks

The pdf version is free for CASS members
About US\$10 for other IEEE members



Seasonal Schools

IEEE CASS Seasonal School
Circuits and Systems for IoT

www.inf.ufrgs.br/cass/iot/



August 5 to 9, 2019, Porto Alegre, Brazil



2019 edition: Porto Alegre, Brazil

IEEE Seasonal School on
Circuits and Systems for IoT

3rd edition

Bordeaux, FRANCE

31st May - 4th June 2021

4th edition: Bordeaux, France, September 2022



IEEE CASS Seasonal School on Physical Design Automation



Past editions:

2017 - Porto Alegre, Brazil

2018 - Chiayi, Taiwan

2019 - Beijing, China

Seasonal Schools

Call for Seasonal Schools

In Person or Hybrid Seasonal Schools can get a support of US\$5000

Virtual ones can get US\$ 2000

Book based on slides with comments
(see CASS webpage)



3rd AgriFood Electronics IEEE CAS Seasonal School

Smart Technologies for a Sustainable Agriculture

September 26-27, 2022 - Politecnico di Torino, Turin, Italy

In this seasonal school agribusiness issues will be presented, associated with the **sustainability of the agriculture from the agronomy's point of view, as well as from the circuits and systems perspective**. The school, organized in **Hybrid Mode**, aims to motivate researchers, students, and industry to successfully address the growing world-feeding challenge by finding the right economical solutions. This seasonal school, that we are repeating on a yearly basis, is meant to become the **meeting point for professionals working on Precision and Smart Agriculture, IoT, sensors, electronic circuits, electronic systems, Integrated Circuits, and many more**.

Electronics applied to following topics will be addressed:

- Sensors for Agriculture
- Soil Analysis
- Growth and Health Monitoring
- Food Waste Process and Reutilization
- IoT Applied to Agribusiness



Register at <http://mines.polito.it/ssafe22>

For information contact danilo.demarchi@polito.it

 **IEEE**
Advancing Technology
for Humanity

 **CAS**

 **IEEE**
Italy Section

 **Politecnico
di Torino**

Regional Activities

CASS Industry Forums

CASIF is a program to increase interaction between academia and industry and demonstrate CASS technical leadership.

CASS will provide funding support for up to 50% of the expenses for each selected Industry Forum depending on the funding availability. (Some industry supports can



The image displays two promotional banners for IEEE CAS-IF Summer-I 2021 and Industry Academia Conclave 2021.

Left Banner (IEEE CAS-IF SUMMER-I 2021):

- Logos:** IEEE, IEEE Lebanon Joint Chapter, CAS, CAS Regional Chapter.
- Speakers:**
 - HICHAM ARAFA:** Future of Automotive
 - AMR ABDEL-HAMID:** Artificial Intelligence of Things: The Opinion of
 - IBRAHIM SOBH:** Computer vision for Autonomous Driving
 - RENÉ DE JONG:** Bringing intelligence to the edge with Arm CPUs
- Topic:** RAPID DEVELOPMENT OF ARTIFICIAL INTELLIGENCE (AI), ELECTRONIC SYSTEMS AND IOT TECHNOLOGIES
- Date:** AUGUST 7, 2021
- Visuals:** A stylized brain graphic composed of colorful triangles and a network diagram with IoT nodes.

Right Banner (Industry Academia Conclave 2021):

- Logos:** CAS, IEEE, IEEE Bangalore Section.
- Text:**
 - Industry @ ACADEMIA CONCLAVE
 - IEEE Circuit and Systems Bangalore Chapter in Association with IEEE Bangalore Section
 - Industry Presents Academia
 - Industry Academia Conclave 2021**
 - Online Event
 - Sept 25th 9 AM - 5 PM
- Visuals:** A background image of hands holding puzzle pieces.

Conferences

Industry Co-Sponsored Events

Together with the **IEEE Circuits and Systems** Society and the IEEE Electron Devices Society, **IBM Research** is hosting the **5th AI Compute Symposium** virtually.

The IBM and IEEE sponsored Symposium will bring together dreamers, thinkers, and innovators in cutting-edge research for a two-day forum to explore AI Compute challenges and future research directions. This symposium is **free of charge**.



2023 International Symposium on Circuits and Systems (ISCAS)

- **Date and Location:**
21-25 May 2023, Monterey, California, USA
- **Conference Theme:**
“Technology Disruption and Society”
- **Conference Venue:**
Monterey Convention Center
- **Call for Papers Deadline:**
24 October 2022
- **Planned Conference Events:**
 - Welcome Reception 22 May, Monterey Bay Aquarium
 - Gala Dinner 24 May, Monterey Beach House



CALL FOR PAPERS

IMPORTANT DATES

CALL FOR PAPERS DEADLINES

October 24, 2022

Regular Paper Submission

December 5, 2022

Transactions Paper Submissions

December 19, 2022

Author Notification

February 4, 2023

Final Manuscript Submission



TOPICS OF INTEREST

The IEEE International Symposium on Circuits and Systems (ISCAS) is the flagship conference of the IEEE Circuits and Systems (CAS) Society and the world's premiere forum for researchers in the active fields of theory, design and implementation of circuits and systems. This is accomplished through technical conference sessions, poster sessions, live demonstration sessions, and publication of conference papers. ISCAS 2023 will be driven by the theme “Technology Disruption and Society” aiming to emphasize the potential of the CAS Society to find innovative solutions to challenges facing society today.

This year's meeting will highlight the following innovation themes:

- » Artificial Intelligence & Deep Learning
- » Big Data Processing
- » Internet of Things
- » Distributed and Decentralized Systems
- » Intelligent Video Analytics and Vision Systems
- » Zettabyte Communication Infrastructure
- » Storage Class Memories and Computational Storage
- » Personalized Healthcare Systems
- » Brain: Innovative NeuroTechnologies
- » Disaster and Pandemic Prevention and Mitigation
- » Green and Sustainable Computing and Systems
- » Technologies for Responsible, Fair and Ethical IT

Collecting contributions in all areas of Circuits and Systems, including but not limited to:

- » Analog and Mixed Signal Circuits and Systems
- » Digital Integrated Circuits and Systems
- » Power and Energy Circuits and Systems
- » Sensory Circuits and Systems
- » Nonlinear Systems and Circuit Theory
- » Digital Signal Processing
- » Multimedia Systems and Applications
- » Communications Circuits and Systems
- » Biomedical Circuits and Systems
- » Neural Networks and Neuromorphic Engineering
- » Beyond CMOS: Nanoelectronics and Heterogeneous System Integration
- » Education in Circuits and Systems

Paper Submission

Selected papers will be invited for possible publication either in the IEEE Transaction on Circuits and Systems – Part I, in the IEEE Transaction on Circuits and Systems – Part II, or in the IEEE Transaction on Biomedical Circuits and Systems.

About Monterey

Picture seaside cliffs and pristine beaches, where you might spot whales, sea otters and migrating birds. From famous writers' haunts to Spanish Missions, the history here is just as fascinating as the geography. Aside from the epic scenery, you'll savor unforgettable flavors from the area's award-winning food and wine scene. Plus, there are limitless opportunities for recreation, including world-class golf, shopping, kayaking, hiking and only 70 miles from Silicon Valley.

Please visit: iscas2023.org



IEEE International Symposium on Circuits and Systems

May 19-22 2024, Singapore
Resorts World Convention Centre

[Submission Site*](#)



[Watch Video](#)

*Submission site to be opened at later dates.



Photo Credit: [Singapore Tourism Board](#)



2023 Latin American Symposium on Circuits and Systems (LASCAS, R9)

Date and Location:

28 February-3 March 2023 Quito, Ecuador

Call for Papers Deadline:

4 September 2022

Best papers selected to TCAS 2 and TCAS 1



In the fascinating volcanic mountain slopes of Quito, the first UNESCO World Heritage site, the IEEE CASS flagship conference brings together acknowledged researchers, engineers, students, and practitioners from all around the world.

Technical novelties and tutorial overviews are most welcomed on the following circuits and systems topics, however not limited to:

- Analog and Digital Circuits
- Mixed-Mode Circuits
- Biomedical Electronics
- Communication/RF Circuits
- Wireless Sensor Networks
- Nanoelectronics
- Electronic Design Automation
- VLSI Systems and Applications
- FPGA Design and Applications
- Circuit Testing
- Fault Tolerant Circuits
- Circuits and Systems for Space and Nuclear Applications

Special Session Proposal: September 4, 2022

Paper Submission: September 4, 2022

Tutorial Submission: September 4, 2022

Notification of Acceptance: October 31, 2022

Camera Ready: November 11, 2022

Accepted paper will be submitted for inclusion into IEEE Xplore. Best papers will be invited to the special issue/section of the IEEE Transactions on Circuits and Systems I (TCAS-I) and IEEE Transactions on Circuits and Systems II (TCAS-II).

General Chairs:

Lionel Trojman, ISEP, France
Luis-Miguel Procel, Universidad San Francisco de Quito, Ecuador

Program Chairs:

Alexander Fish, Bar-Ilan University, Israel
Alexandra Zimpeck, Universidade Católica de Pelotas, Brazil

Special Sessions Chairs:

Andreas Burg, EPFL, Switzerland
Ramiro Taco, Universidad San Francisco de Quito, Ecuador

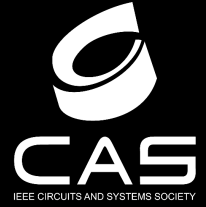
Social Activities:

Besides the technical program, a very entertaining social program is planned. Special optional tours to tourist attractions, as Galapagos Islands, will be available to the Symposium attendees and their guests

LASCAS2024

Punta del Este, Uruguay

February 27 - March 1, 2024



2023 IEEE International Conference on Electronic Circuits and Systems (ICECS, R8)

Date and Location:

December 4-7, Glasgow, Scotland

Best papers selected to TCAS 2 and TCAS 1



ICECS 2023

The 30th IEEE International Conference on Electronics Circuits and Systems

4-7 December 2023 – Hilton Maslak Istanbul / Turkey

TECHNOSAPIENS FOR SAVING HUMANITY



The 30th IEEE International Conference on Electronics, Circuits and Systems (ICECS) will be held in Istanbul, Turkey 4-7 December 2023. As the flagship conference of IEEE Circuits and Systems Society in Region 8 (Europe, Middle East, and Africa), ICECS 2023 will consist of tutorials, plenary lectures, regular, special and poster sessions focusing on recent trends, emerging technologies and advances. "Best-, Women in CAS-, Young Professional- and Student-Paper Awards" will be presented.

CONFERENCE COMMITTEE

Honorary Chairs:

Magdy Bayoumi, Josef Nossek,
Franco Maloberti, Thanos Stouraitis,
Vedat Tavşanoğlu

Conference Chairs:

Cem Gökner, Siddik Yarmar

Technical Program Chairs:

Müştak Erhan Yalçın, Norbert Herencsar

Industrial Relations Chairs:

Mohammed Ismail, Mustafa Berke Yelten

Finance Chairs:

Serdar Özoğuz

Tutorial Chairs:

Ahmed S. Elwakil, Ronald Tetzlaff

Special Sessions Chairs:

Tayfun Nesimoğlu, Neslihan Serap Şengör

Publicity and Public Relations Chairs:

Ricardo Reis, Ljiljana Trajkovic, Yonca Brunini

Publication Chairs:

Onur Kaya, Edoardo Bonizzoni, Tuba Ayhan

Multimedia Publications Chairs:

M.Taner Eski

Demo Chairs:

Michele Magno, Okan Zafer Batur

Awards Chairs:

Hadi Heidari, Cüneyt Güzelış, Nihal Pekergin

Local Arrangement and

Conference Secretariat:

Cengiz Korkmaz, Mehmet Eldegez
(Dekon Congress and Tourism)

IMPORTANT DATES

26 MAY

Special Session and Tutorials Proposals

2 JUNE

Notification of Special Session
Acceptance

16 JUNE

Paper Submissions

15 SEPTEMBER

Notification of Paper Acceptance

13 OCTOBER

Camera-Ready Paper Submission &
Early Registration Deadline

Conference proceedings will be indexed and published
on IEEE Xplore and selected papers will be published in
IEEE Transactions. Topics include but are not limited to

- Analog/Mixed-Signal/Microwave Circuits
- Bio-Medical, Bio-Inspired Circuits/Systems
- EDA, Test and Reliability
- Digital Circuits and Systems
- Linear and Non-Linear Circuits and Systems
- Non-Linear Devices, Memristors
- Low-Power, Low-Voltage Design
- Embedded and Micro/Systems
- Neural Networks, Machine/Deep Learning
- Sensors and Sensing Systems
- Signal Processing, Image and Video
- VLSI Systems and Applications
- Smart Systems for CAS Applications

OPENING AND PLENARY LECTURES

Mehmet Toner, Professor, Massachusetts General Hospital and Harvard Medical School, on **"Microchip Technologies for Clinical and Biomedical Applications."**

Burak Göktürk, Vice President of Engineering, Google Cloud AI Industry Solutions at Google, on **"How We Carefully Lift the Use of AI Across the Globe."**

Luca Benini, Chair of Digital Circuits and Systems@ETHZ, Full Prof@the University of Bologna. **"10 years of PULP: Developing energy efficient computing architectures"**



TEYFİKE SCHOOLS FOUNDATION
IŞIK UNIVERSITY



icecs2023.org

Publications

Fully-Sponsored Periodicals

IEEE Trans. on Circuits & Systems – I Regular Papers (TCAS-I)

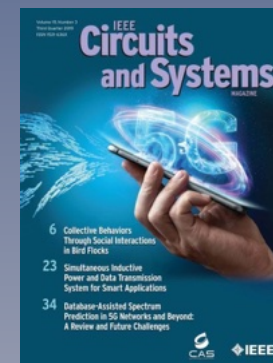
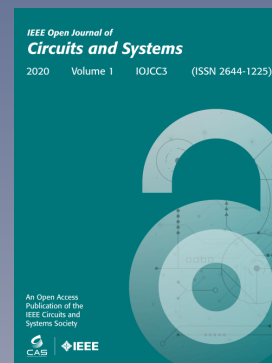
IEEE Trans. on Circuits & Systems – II Express Brief (TCAS-II)

IEEE Trans. on Circuits & Systems for Video Technologies (T-CSVT)

IEEE J. on Emerging Topics in Circuits & Systems (JETCAS)

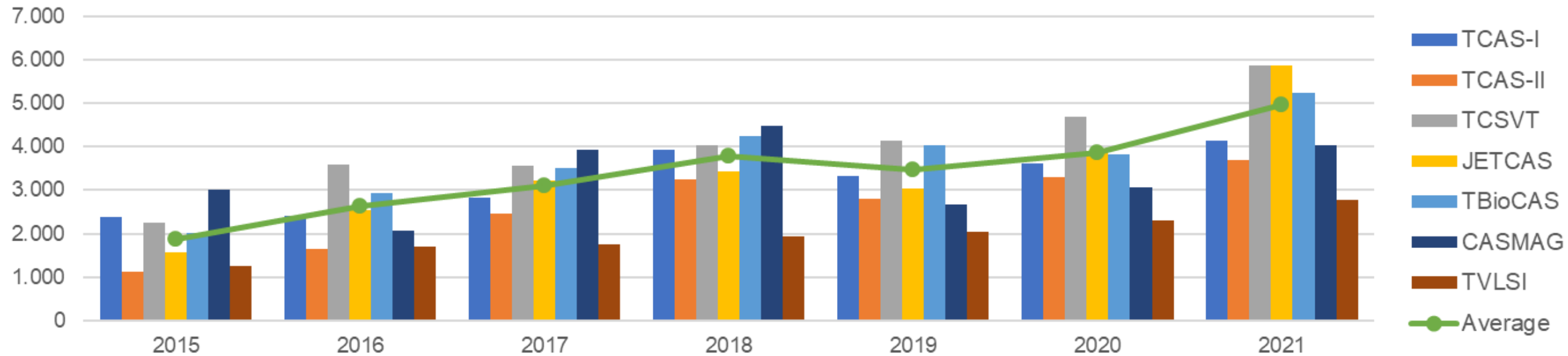
IEEE Open Journal on Circuits and Systems (OJCAS). **Full OA journal**

IEEE Circuits and Systems Magazine (CASM)



Publications

Impact Factor



Publications

Periodicals co-sponsored

IEEE Trans. on Biomedical

NEW! IEEE Trans. on AgriFood Electronics

IEEE Trans. on Network

IEEE Trans. on Very Large

IEEE Design and Test Ma

IEEE Radio Frequency In

IEEE Trans. on Multimed

IEEE Trans. on Mobile Co

IEEE J. on Exploratory S

IEEE J. on Flexible Electr



TAFE
IEEE TRANSACTIONS
ON AGRIFOOD
ELECTRONICS

IEEE Transactions on AgriFood Electronics

The IEEE Transactions on AgriFood Electronics (TAFE) are the key reference for publishing your research about the application of electronics to the AgriFood value chain.

The submission portal will be open on November 2022

TAFE Scope

TAFE is the cutting edge research publication covering circuits and systems, integrating the needed sensors, actuators and interfaces, applied to the AgriFood chain of value, including technologies for food related to its production, processing, quality control along the distribution chain, and preservation, which require various integrated sensing systems, actuators, manufacturing, and diverse integration levels such as Printed-Circuit Board (PCB), System in Board (SiB), System on Chip (SoC), System in package (SiP), and packaging techniques.

TAFE KeyPoints

Innovative Electronic Solutions for:

- Precision Agriculture
- Smart Livestock Farming
- Global Warming Facing
- Reduction of Pesticides
- Optimization of Resources
- Better Food Production
- Food Safety
- Food Processing
- Food Transportation

For information contact:
daniilo.demarchi@polito.it

80%

50%

%

al (RFIC-VJ). 33.3%

s and Circuits (JXCDC). 11%



Publications and more

IEEE Councils



IEEE Tech Comm





TECHNICAL COMMITTEES

CASS has 14 Technical Committees promoting technical activities in various areas and 3 Special Interest Group

It is easy to join these committees; all Technical Committees are listed at ieee-cas.org and meet throughout the year



Technical Activities

Committees and Special Interest Groups

Analog Signal Processing

Biomedical and Life Science Circuits and Systems

Cellular Nanoscale Networks and Memristor Array Computing

Circuits and Systems for Communications

Circuits and Systems Education and Outreach

Digital Signal Processing

Multimedia Systems and Applications

Nanoelectronics and Gigascale Systems

Neural Systems and Applications

Nonlinear Circuits and Systems

Power and Energy Circuits and Systems

Sensory Systems

VLSI Systems and Applications

Visual Signal Processing and Communications

Special Interest Groups

Flexible Hybrid and Printed Electronics

AgriFood Electronics

Internet of the Things

Artificial Intelligence Circuits and Systems *

Technical Activities

Broad and Deep Technical Expertise

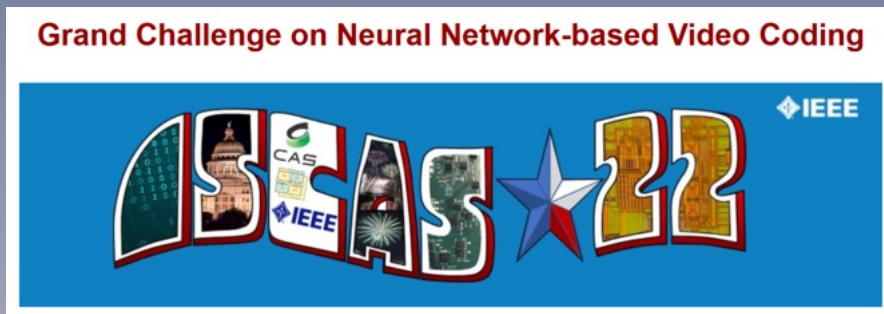
Review Process in flagship events

Organize Thematic Conferences (e.g., BioCAS, VCIP)

Satellite **Workshops** alongside main conferences



Grand **Challenges** based on open source database



AutoCAS (Autonomous Mobility CAS)

Autonomous Mobility Circuits and Systems Workshop (AutoCAS 2022)



Technical Activities

Standards

Standard developments

Upcoming Outreach Events: We are planning several outreach events as part of CAS conferences such as AICAS, ISCAS, NewCAS, MWCAS, BioCAS in 2022. More details can be found on the SASD Events page.

IEEE Circuits and Systems Society Standards Activities Sub Division

- ➔ SASD Committee
- ➔ SASD Standards Committees
- ➔ SASD Events



Examples

IC Design and Test for Emerging Circuits and Systems. Chair: **Vahid Vahidfar**

Emerging Processor Systems. Chair: **Travis Anderson**

Domain-Specific Accelerators. Chair: **Mehran Nekuui**

Flexible and Wearable Circuits and Systems. Chair: **Yong Lian**

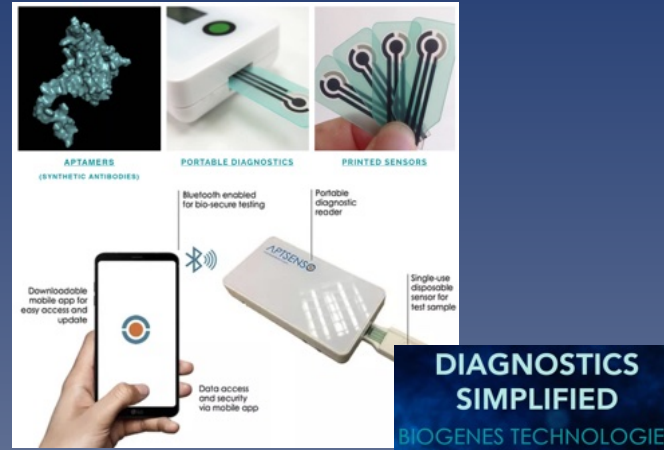
Technical Activities

CASS Covid-19 Competitions

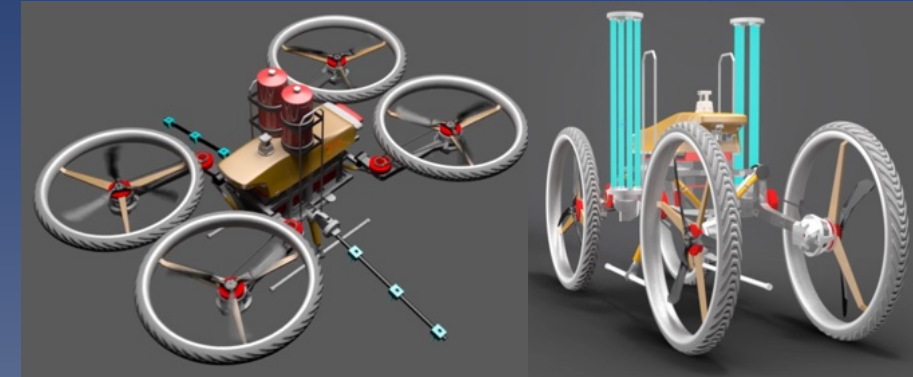
Entrepreneurs



ProtonDx: fast and accurate diagnosis of SARS-CoV-2



BIOGENES TECH: multi-functional portable electrochemical-based biosensing device

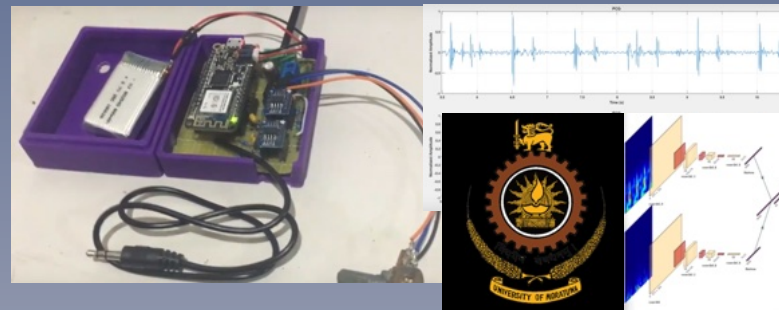


FLYUPAV: Surface and Air UVC Sanitizer Robot

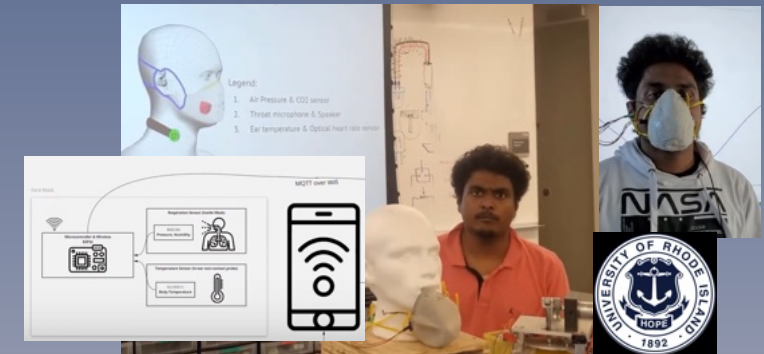
Students



Low-Cost Artificial Ventilator with Embedded Artificial Intelligence Monitoring



Intelliscope: A Low-Cost AI-powered Stethoscope for Cardiovascular Disease Management



RespDetect: A Smart Mask to Monitor COVID-19 Symptoms



CASS CHAPTER ACTIVITIES

Chapters are local units which favor activities among members and organize many local events including, but not limited to, CASS Distinguished Lecturer talks, seasonal schools, workshops in emerging topics and general networking events.

IEEE CASS has approximately 123 chapters worldwide, composed of the following:

Region 1-7: 36

Region 8: 36

Region 9: 17

Region 10: 34

A full listing can be found on our website at:

<http://ieee-cas.org/ram-division>

Regional Activities

Chapters and Student Branches are administrative units which favor activities among members and organize local events.

In addition to IEEE funding, the CAS Society provides the following financial support to its Chapters:

An amount that will depend on an assessment of the activities carried out in the previous year and on the plans for the current year.

Chapters can also apply for **support** to participate in different CASS Programs (e.g., **Distinguished Lecturer** talks, CASS **Seasonal Schools**, or CASS **Industry Forums**) or develop **local initiatives** (e.g., Workshops on emerging topics, networking events, or DEI activities) through the CASS **Outreach Initiative** \$500 in “start-up” funds for new chapters.

CASS TALKS

Organized by CASS Rio Grande do Sul Chapter

Each Friday, 1:30 PM

presentations are realtime

YouTube Live @ IEEE CASS Rio Grande do Sul Chapter

<https://www.youtube.com/cassriograndedosul>

IEEE CASS RS Talks 2022
UFRGS, Porto Alegre, Brazil

1:30 PM (Brasilia Time, GMT-3), July 22, 2022

Dr. Tiago Reimann, Siemens EDA, USA

Challenges and Methods for Hotspot Detection and Advanced Process Node Yield Ramp Improvement

Abstract:

In the semiconductor fabrication process, yield is negatively impacted by defects that appear systematically within specific patterns of the physical layout design. Those defective patterns are popularly known as hotspots, and they can arise due to various causes. There are several known approaches of hotspot detection. One approach for hotspot detection is Machine Learning (ML), where known hotspot and non-hotspot patterns are used for training the model to be used afterwards in prediction of new hotspots. With the continuous growth in IC manufacturing complexity, developing new process nodes has become an ever-increasing challenge. From the initial process node architectural explorations to initial design rule specifications to early RET development and "risk production" early NPI (New Product Introductions), critical decisions with far reaching performance and yield impact must be made. Applying innovative methods to enable early and broad engineered testing informs better architectural decisions and performance tradeoffs. Methods to identify, root-cause, categorize known yield detractors and to flag unknown potentially new risk patterns enable product yield risk mitigation and continuous learning. Accumulated learning from each step, each stage and each new product leads to more robust designs and ultimately higher performance and improved yield. This presentation will talk about known challenges and some techniques applied to hotspot detection and dataset selection to accelerate advanced process node yield ramp.

Short CV:

Tiago Reimann received his Computer Engineering degree, Master's and PhD in Microelectronics from Universidade Federal do Rio Grande do Sul (UFRGS - Brazil). He was a member of the winning team in the ISPD 2013 Discrete Gate Sizing Contest and interned with IBM Research Lab at Austin, TX. He joined Mentor Graphics in 2016, working in the physical design group. Tiago is currently a Staff Engineer at Siemens EDA in the Calibre IC Manufacturing Solutions engineering team focusing on methods to improve product yield and provide faster ramp by structuring and analyzing massive amounts of data, creating predictive machine learning models, and generating actionable analysis.

YouTube Live @ IEEE CASS Rio Grande do Sul Chapter
<https://www.youtube.com/cassriograndedosul>



IEEE CASS RS Talks 2022
UFRGS, Porto Alegre, Brazil

November 25, 2022, 1:30 PM (Brasilia Time, GMT-3)

Prof. Ian O'Connor, University of Lyon, France

Emerging Technology Based 3D Compute Cubes for Edge Intelligence

YouTube Live @ IEEE CASS Rio Grande do Sul Chapter
<https://www.youtube.com/cassriograndedosul>



CASS

Outreach Initiative



CASS provides funding to activities aligned with CASS mission that may have impact on the community and on its membership.

Any CASS member, Chapter or Technical Committee can apply.

Two calls per year

Check <http://ieee-cas.org/financial-activities> for the rules and the list of supported proposals since 2012, as well as past reports of the supported initiatives.

Regional Activities

Distinguished Lecturer Program

DLP, virtual or in-person, provides **CASS chapters** around the world with talks by experts on topics of interest and importance to the CASS community. It, along with our conferences and publications, is the way we use to disseminate knowledge in the CASS field.

2022-23 DLP Roster. 10 Speakers, 21 Lectures



Chua Zhang



Michael P. Kennedy



Silvia Zhang



Wen-Hsiao Peng



Yu Cao



G. A. Rincón-Mora



Hongliang Li



Massimo Alioto



Partha P. Pande



Jennifer B. Christen

Student Travel Awards

Travel Grants (air fare, hotel, ...) to students that are authors in CASS flagship conferences.

Can support the participation in past and future CASS flagship conferences (like LASCAS).

4 times per year



CASS Membership

Special Discount for customers in Developing Nations:

Use the code **CASS23DEVNAT50**
50% off IEEE CASS Membership



IEEE CASS Student Membership US\$11 year (with the 50% discount will be US\$5.50 per year)

IEEE Student Membership US\$27
(with the 50% discount with code **FUTURE50** it will be US\$13.50)

STUDENT DESIGN COMPETITION

The IEEE Circuits and Systems Society (CASS) invites you to participate in the 5th CASS Student Design Competition. The CASS Student Design Competition is a worldwide competition where undergraduate students will suggest and execute projects on Electrical Engineering, Computer Engineering and related areas. The focus should be on finding a solution to a real-life problem based on circuits and systems.

Three phases:

- 1st at chapter level

- 2nd at regional level

- Final competition during ISCAS, in Monterey, USA, May 21 - 25, 2023

CASS supports travel of up to 3 members of each of the finalist teams to present their work during ISCAS.

Detailed information on <http://ieee-cas.org/>

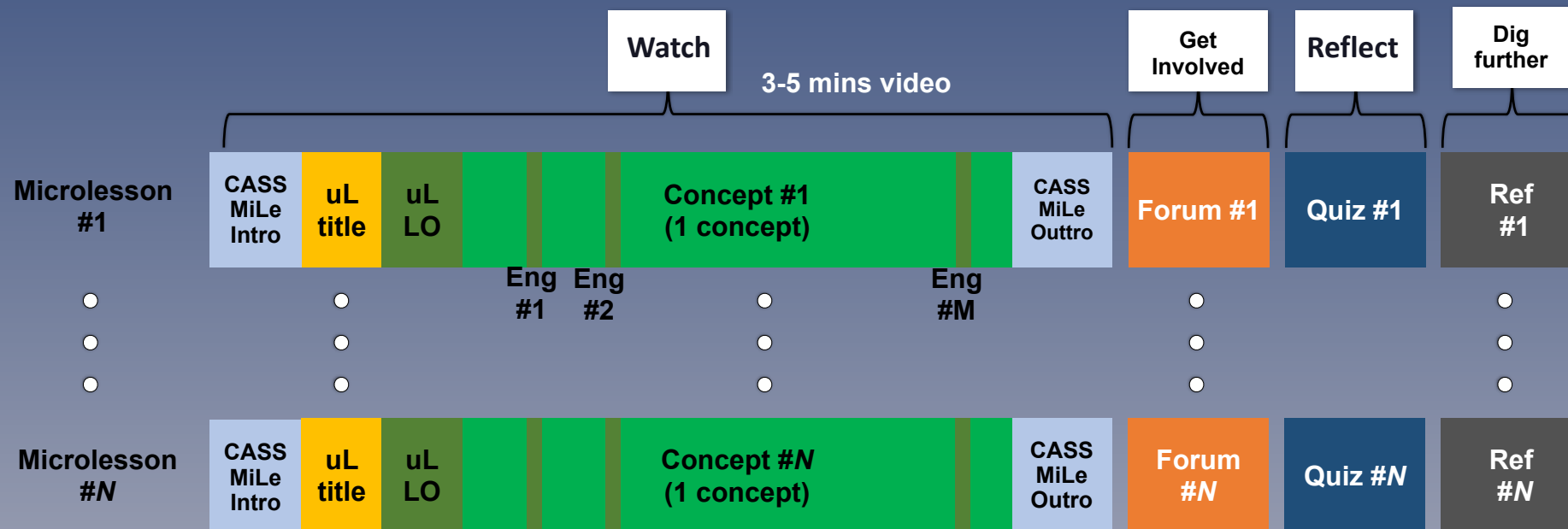
Prepare your team for the 2023/2024 edition (finals at ISCAS in Singapore)

Continuous Education

CAS Micro Learning (MiLe)

The CASS MiLe e-learning platform presents Distinguished Lectures, 2-minutes paper, and Professional Guidance talks in a shorter, quicker, bite-sized form.

IEEE CASS Certificate



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IEEE CASS Certificate



**On-Chip Epilepsy Detection:
Where Machine Learning
Meets Wearable,
Patient-Specific
Wearable Healthcare**



*Prof. Jerald Yoo,
National University of Singapore, Singapore* >>>



**Machine Learning and
Deep Learning Systems:
Low Energy VLSI
Architectures and
Applications**



*Prof. Gerald Sobelman,
University of Minnesota, USA* >>>



**Machine Learning for
Analytics Architecture:
AI to Design AI**



*Prof. Gwo Glun (Chris) Lee,
National Cheng Kung University, Taiwan* >>>

<https://ml.ieee-cas.org/>

Collective Initiatives

Women in CAS Program (WiCAS)

WiCAS is in charge of developing initiatives to promote the entry, retention and professional growth of women in the CAS Society and, in general, to inspire and motivate women in the domain of circuit and system for an efficient role in their professions.

WiCAS events can be organized as a **satellite event** in the frame of **all CASS conferences** or can be organized and promoted as an independent event by Technical Committees, Chapters and Special Interest Groups in CASS. WiCAS events are open and welcome everyone.




Collective Initiatives

Women in CAS Program (WiCAS)



AICAS 2022
IEEE International Conference on
Artificial Intelligence Circuits and Systems
June 13-15, 2022
Songdo Convensia, Incheon, Korea

WiCAS Invited Speakers



Designing an Efficient HW Accelerator for AI Workloads

Dr. Soojung Ryu
CEO, SAPEON Inc., Korea

[Biography](#) [Abstract](#)

Collective Initiatives

Young Professionals Program

In addition to all of the benefits offered through standard membership (Technical and Regional activities, publications, conferences), student members of CASS receive the following additional benefits:

Special Scholarship Opportunities (**Predoctoral Grants**)

Student Travel Awards Opportunities

Conferences specifically tailored to PhD Research (PRIME)

CASS **Mentoring Program** at CASS Flagship Conferences

Awarded **Design Competitions**

Young Professionals **functions and initiatives** (job fairs, roundtables, podcasts,...)

Special student **discounts** on CASS Conferences and Workshops

Outstanding Young Author **Award in CASS Publications**



**You should consider
to be a member of
IEEE Circuits and Systems Society**



CASS STUDENT BRANCH

CASS Student Branches should be connected to professional CASS Chapters.

CASS Student Branches can request financial support to organize activities.

BTW:

CASS Student Membership and
CASS Graduate Student Membership have the same cost



How to launch a CASS Chapter



To do a petition to start a CASS Student Chapter it is needed only 6 Student that are CASS members

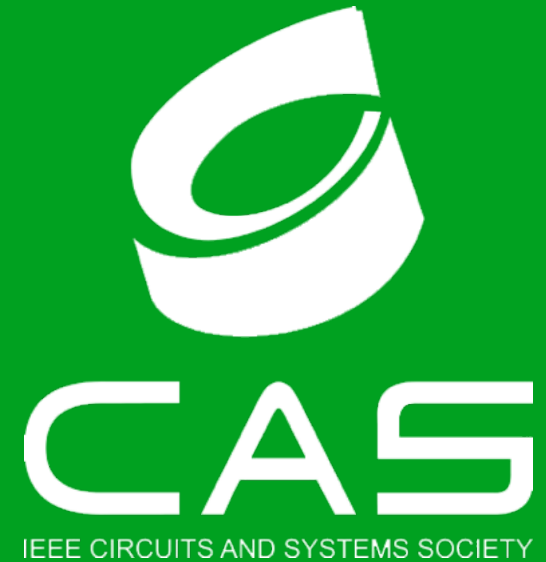
To do a petition to start a CASS Professional Chapter it is needed only 12 professionals that are CASS members, including CASS Graduate Student members.

IEEE Circuits and Systems Society



Region 9 Latin America

Ricardo Reis
R9 representative at CAS BoG





For more information, please visit:
www.ieee-cas.org

Thank you!

Something More