"Smart Technology for an Intelligent Society"

ISCAS 2021

Daegu, Korea, May 23-26, 2021

IEEE   CAS

Important Dates

Oct.5 2020	Oct.23 2020	Nov.16 2020	Dec.7 2020	Jan.15 2021	Jan.11 2021	Feb.5 2021
Submission deadline for Special Session Proposals	1- Submission deadline for Regular Papers 2- Submission deadline for Live Demo Proposals	Submission deadline for CAS Trans. Papers	Submission deadline for Tutorials Proposals	Notification of Acceptance (for all papers)	Notification of Acceptance (for Tutorials)	Final Submission Deadline

Topics

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 highly 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 2021 will be driven by the theme **"Smart Technology for an Intelligent Society"** aiming to emphasize the potential of the CAS Society to find.

To implement the above vision, this year's meeting will highlight the following innovation themes

by collecting contributions in all areas of Circuits and Systems, including but not limited

- Emerging Technologies
- Smart Systems for Automotive
- Cognitive Computing and Deep Learning
- Personalized Healthcare Systems
- Brain: Innovation NeuroTechnologies
- Internet of Things
- Big Data Processing
- Artificial Intelligence
- Cyber-Physical Systems
- Sustainable Computing and Systems
- Energy-aware Systems and Services
- 5G and Multi-Gigabit Optoelectronics Comm

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

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 Daegu

Daegu is a city of living legacy and charm embracing 3,000 years of history. Nestled within wooded mountains and the Gumhogang river flowing around it, Daegu is an ideal place to convene and relax. The congress participants are assured of a warm welcome and a comfortable stay in Daegu, a city with many historic legacies registered as the World Heritage sites by UNESCO.

Organizing Committee

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Ross M. Walker University of Utah
Minkyu Je KAIST

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Andy Wu Nat'l Taiwan University
Samuel Tang (Kea-Tiong Tang) Nat'l Tsing Hua University
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www.iscas2021.org   info@iscas2021.org   +82-53-740-0421

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The ISCAS2021 Organizing Committee invites proposals for Special Sessions to be held during the 2021 IEEE International Symposium on Circuits and Systems in Daegu, Korea from 23rd May till 26th May 2021.Special sessions complement the regular technical program by highlighting new and emerging research topics or innovative applications of established approaches. The topic of a special session proposal should be timely and compelling.While we welcome special sessions in all areas of Circuits and Systems, we are particularly interested in focused research topics, specifically those related to the conference innovation themes.

Emerging Technologies	**Brain: Innovation NeuroTechnologies**	**Cyber-Physical Systems**
Smart Systems for Auto motive	**Internet of Things**	**Sustainable Computing and Systems**
Cognitive Computing and Deep Learning	**Big Data Processing**	**Energy-aware Systems and Services**
Personalized Healthcare Systems	**Artificia Intelligence**	**5G and Multi-Gigabit Optoelectronics Comm**

Special sessions can also cover any other area focusing on challenging open problems of relevance in applications.The participation of speakers from industry in a special session proposal is encouraged and will be positively evaluated when the proposal is assessed. Note that all papers will be subject to the same peer review process as for regular papers.

Important Dates

Oct.5 2020	Oct.12 2020	Nov.16 2020	Jan.15 2021	Feb.5 2021
Special Session Proposals	Special Session Proposals Notification	Special Session Papers Submission Deadline	Notification of Special Session Paper Acceptance	Special Session Final Paper Submission

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Special Session Proposals

Please submit proposals (approximately 3 pages) in pdf format by email to the Special Sessions Co-Chairs.
Proposal should include the following information:

1 — Title and Abstract

Propose a title and a brief abstract of no more than approximately 100 words that will allow conference attendees to understand the topic and the focus of the special session.

2 — Rationale

Please explain why the topic of the special session is novel and timely, why it is relevant to the ISCAS community and how it possibly fits within the innovation themes listed above.

3 — Proposed speakers

Provide a list of all talks, speakers, and co-authors (in each associated paper). Technical sessions are normally expected to have 5 papers. In exceptional cases (like industrial talks, or contribution by particularly renowned speakers) it may be possible to have sessions of one talks without an associate paper or a talk which will have a double-time slot for the presentation. In these cases, please contact the Special Sessions Chairs in advance (before submitting your proposal) to explain the rationale of your request.

4 — Biographies

Provide a short bio-sketch of the session proposers.

Important aspect in the evaluation of special session proposals will be the timeliness of the topic, quality/track record of the proposers and speakers, coherence of the session and expected value added to the overall technical program. Notifications of acceptance/rejection will be provided by October 5, 2020.Organizers of the two most successful special sessions will be invited to organize and serve as Guest Editors of special issues in the IEEE Journal on Emerging and Selected Topics in Circuits and Systems.

ISCAS 2021 Special Session Co-Chairs

Elena Blokhina	University College Dublin ✉ elena.blokhina@ucd.ie
Ittetsu Taniguchi	Osaka University ✉ i-tanigu@ist.osaka-u.ac.jp
Ross M. Walker	University of Utah ✉ ross.walker@utah.edu
Lan-Da Van	National Chiao Tung University ✉ ldvan@cs.nctu.edu.tw
Qiang Li	University of Electronic Science & Technology of China ✉ liqiang@ieee.org
Minkyu Je	KAIST ✉ mkje@kaist.ac.kr

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The ISCAS2021 Organizing Committee invites proposals for Live Demonstrations to be held during the 2021 IEEE International Symposium on Circuits and Systems in Daegu, Korea from 23rd May till 26th May 2021.

This track offers the possibility for an interactive and tangible form of presentation which is quite different from oral and poster sessions. The demonstrations will be conducted in presentation booths with ample space to set up a working system, whether it is interactive software on a laptop, a hardware setup, or even a system acquiring signals from a human. Conference attendees are invited to experience the demonstrations directly, to interact with, play with, and challenge them. Presenters have the opportunity to show direct proof of their working systems and to create a lasting impression in a session that is very well attended.

A panel of judges will select the three Best Demos presented during the Symposium on the basis of creativity, innovation, and visitor experience. These Demos will be awarded with $500, $300 and $200, respectively.

Live Demonstration proposals may be submitted in either of the following two categories.

1 — Proposals of live demonstrations based on already published work.

Prospective presenters should submit a one-page description of the demonstration using the same page formatting as for regular ISCAS papers. It is mandatory to include a reference to at least one earlier publicly accessible publication of this work. During submission presenters should select "Live Demonstrations (Demo Description)" as the Primary Track and an appropriate topical subtrack as the Secondary Track.

2 — Proposals based on new work intended for publication in ISCAS 2021.

Prospective presenters are requested to submit a one-page description of the demonstration as mentioned above, with "Live Demonstrations (Demo Description)" as the Primary Track and an appropriate topical subtrack as the Secondary Track. In addition, they should submit the concurrent paper, prepared and formatted according to the instructions for regular ISCAS papers (i.e. this is a technical paper and not a demonstration description), which will undergo the same review process as a regular paper submission. During submission of the concurrent paper, presenters should select "Live Demonstrations (Full Paper)" as the Primary Track and an appropriate topical subtrack as the Secondary Track. Note that the submission deadlines for the one-page description and the accompanying paper are different.

✳ Important Dates

Oct.23 2020
Submission of Accompanying Full Paper(if any)

Nov.2 2020
Submission of Demos One-Page Description

Jan.15 2021
Notification of Acceptance

Feb.5 2021
Submission of camera-ready copy - both of the full concurrent paper (if any) and the one-page demo description

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One-page Demo Description

The one-page demonstration description in both aforementioned categories must contain the following information:

1 — Demonstration Title and Contributors Information:

The title must begin with "Live Demonstration". Please indicate all contributors to the demo and their affiliations. In case of submission of a concurrent full paper, the list of contributors is not necessarily the same of the authors of the paper.

2 — Demonstration Setup:

Describe the equipment that you will bring to ISCAS. Include a photograph and/or screenshot. Only a power plug, a table and display stand will be provided. Demonstrators are responsible for the transportation of their own equipment to the meeting site. Indicate any special requirements such as for example extra space for demonstrating robotic movement or other requirements which the organizers should be aware of.

3 — Visitor Experience:

The title must begin with "Live Demonstration". Please indicate all contributors to the demo and their affiliations. In case of submission of a concurrent full paper, the list of contributors is not necessarily the same of the authors of the paper.

4 — For Demonstrations Related to Previous Published Work:

Please include one or more citations referring to your work about the scientific background of your live demonstration. This reference must be publicly and easily accessible for the reviewers – a URL is highly recommended! Inaccessible conference publications will be cause for paper rejection.

5 — For Demonstrations with a Concurrent Full Paper:

Please include a reference to your full paper including the submission ID number in your demonstration description. For the final submission, you may want to update this reference, removing the ID number.

6 — Optional Video:

The title must begin with "Live Demonstration". Please indicate all contributors to the demo and their affiliations. In case of submission of a concurrent full paper, the list of contributors is not necessarily the same of the authors of the paper.

ISCAS2021 Live Demonstration Session Co-Chairs

| **Tobi Delbruck** | ETH Zurich ✉ tobi@ini.uzh.ch |
| **Ji-Hoon Kim** | Ewha Womans University ✉ jihoonkim@ewha.ac.kr |

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The ISCAS2021 Organizing Committee invites proposals for Tutorials to be held during the 2021 IEEE International Symposium on Circuits and Systems in Daegu, Korea from 23rd May till 26th May 2021.Tutorials offer participants from different technical backgrounds the chance to explore innovative trends and learn new techniques from experts in the field. There will be three forms of tutorials at ISCAS2021 full-day, half-day (morning or afternoon), and mini tutorials. The full-day and half-day tutorials will be held on May 23, 2021, and the mini-tutorials (~1.5 hours) will be integrated into the main technical program on May 24-26, 2021, in coordination with an integrated program of activities associated with the ISCAS2021 innovation themes.Participation in tutorials and technical meetings is an excellent opportunity for lifelong learning, and ISCAS2021 is committed to supporting your professional development. Continuing Education Units (CEUs) will be available for ISCAS delegates participating in tutorials or attending technical sessions.Suitable tutorial topics range from emerging research areas to established techniques of practical and industrial relevance. Tutorials in all areas of circuits and systems disciplines are welcomed and ISCAS2021 is particularly interested in tutorial topics related to the conference innovation themes.

Emerging Technologies	**Brain: Innovation NeuroTechnologies**	**Cyber-Physical Systems**
Smart Systems for Auto motive	**Internet of Things**	**Sustainable Computing and Systems**
Cognitive Computing and Deep Learning	**Big Data Processing**	**Energy-aware Systems and Services**
Personalized Healthcare Systems	**Artificia Intelligence**	**5G and Multi-Gigabit Optoelectronics Comm**

Important Dates

Dec.7 2020	**Jan.11** 2021	**April.5** 2021	**April.30** 2021
Tutorial Proposals	Tutorial Proposals Notification	Submission of Final Tutorials Slides	Hands-off ready (changes are not allowed)

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Tutorial Proposals

Please submit tutorial proposals by email to the Tutorial Co-Chairs. The proposal should include a (maximum) three-page description of the tutorial (see below for details) and 1page professional biographies of the tutorial speakers that highlight their qualifications and track record in the proposed subject area of the tutorial. The three-page tutorial proposal should contain the following information:

1 — **Format of the tutorial**

Full-day, half-day, mini-tutorial.

2 — **Title and abstract**

Propose a title and an abstract that allows conference attendees to quickly and accurately understand the subject matter of the tutorial.

3 — **Motivation and Focus**

Explain why your topic is important to the ISCAS community and what you hope the participants will learn by attending your tutorial. In this section, please provide a syllabus outlining the content of the tutorial and the learning outcomes. This syllabus should be realistic, given the time available.

4 — **List of Speakers**

This is in addition to the tutorial organizers. Some tutorials may feature several speakers that should be advertised, but it is not necessary, nor a requirement. Tutorials should not become de facto mini-symposia with many speakers. If you plan to have multiple speakers, please provide their names and affiliations and clearly describe the part of the tutorial that they will cover.

5 — **Basic structure of the Tutorial**

In this section, please describe your use of the time available. (e.g., morning lectures: fundamentals and case studies; afternoon panel discussion or brain-storming sessions, etc.).Authors of the two most successful tutorials will be invited to write a corresponding overview paper in the Circuits and Systems Magazine or in the IEEE Transactions on Circuits and Systems – Part I: Regular Papers.

ISCAS 2021 Tutorial Co-Chairs

Massimo Alioto	Natioal University of Singapore ✉ eleamb@nus.edu.sg
Andy Wu	National Taiwan University ✉ andywu@ntu.edu.tw
Samuel Tang (Kea-Tiong Tang)	National Tsing Hua University ✉ kttang@ee.nthu.edu.tw
Hiroo Sekiya	Chiba University ✉ sekiya@faculty.chiba-u.jp
Jongsun Park	Korea University ✉ jongsun@korea.ac.kr
Timothy Constandinou	Imperial College of London ✉ t.constandinou@imperial.ac.uk

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The ISCAS2021 Organizing Committee invites authors of an accepted paper published in one of the following IEEE Transactions (co-) sponsored by the IEEE Circuits and Systems Society to present their work at ISCAS2021, subject to fit within the scope of the Symposium, space availability and approval by the ISCAS2021 Organizing Committee.

- **IEEE Transactions on Circuits and Systems – Part I: Regular Paper**
- **IEEE Transactions on Circuits and Systems – Part II: Express Briefs**
- **IEEE Open Journal of Circuits and Systems**
- **IEEE Transactions on Circuits and Systems for Video Technology**
- **IEEE Transactions on Biomedical Circuits and Systems**
- **IEEE Transactions on Very Large Scale Integration (VLSI) Systems**
- **IEEE Transactions on Network Science and Engineering**
- **IEEE Transactions on Multimedia**
- **IEEE Transactions on Mobile Computing**
- **IEEE Design & Test**

Papers published in 2020, including those in the pre-publication lists, are eligible for presentation at ISCAS2021. Because these papers have already been peer-reviewed and published, the Transactions papers to be presented at ISCAS2021 will not be reviewed again.

An abstract of the paper and a link to the publication hosted in IEEE Xplore will be included in the conference proceedings for the benefit of the ISCAS2021 participants, and will not be uploaded to IEEE Xplore after the conference. Approved requests for presentation must have one author/presenter register for the conference according to the ISCAS2021 registration instructions.

Important Dates

Nov.16
2020

Submission deadline
for TCAS papers
presentation

Jan.15
2021

Decision notification
for TCAS papers presentation

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Submission procedure

Please submit your request to present a published work at the ISCAS 2021 submission site using the template file therein. Each request must include the following needed Information:

1 — Title of the transactions/journal paper

2 — Complete Author List from the transactions/journal paper (with the presenting author underlined)

3 — Abstract from the transactions/journal paper

4 — Keywords

5 — Transactions Title

6 — Volume number, Issue number, Pages number

7 — DOI number or URL to IEEE Xplore page of transactions/journal paper

8 — ISCAS theme alignment(s).

ISCAS 2021 CAS Transactions Papers Selection Co-Chairs

Hanho Lee	Inha University ✉ hhlee@inha.ac.kr
KyungKi Kim	Daegu University ✉ kkkim@daegu.ac.kr
Takao Onoye	Osaka University ✉ onoye@ist.osaka-u.ac.jp
Gabriel Lincon-Mora	Georgia Tech ✉ rincon-mora@gatech.edu

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◆IEEE CAS

Following an established tradition, the ISCAS 2021 Organizing Committee invites proposals for contributions in the Late Breaking News (LBN) track as a venue for fast dissemination of novel and high profile results for which timeliness of disclosure with the community is critical.The intent is to present technical works reflecting the most recent and highest impact research and application results. All topical areas spanning the technical breadth of Circuits and Systems are encouraged for submission, including cross-cutting topics and those that reach beyond disciplines traditionally represented at ISCAS.

Late Breaking News Proposals

Authors are invited to submit a one-page Abstract and up to two pages of additional key supporting material (e.g., measurements, comparison with other work) via Paper submission site.The deadline for the submission of the abstract and of the additional material is Feb. 5, 2021. A template is available in the submission page.Note that abstracts of accepted proposals will be directly published in the ISCAS 2020 proceedings but not appear in the IEEE Xplore. No special section of the IEEE Transactions on Circuits and Systems – Part II (TCAS-II) devoted to ISCAS 2021 Late Breaking News contributions will be issued.Authors of accepted abstracts will present their results during lecture sessions at ISCAS 2021.Authors of accepted contributions who are attending ISCAS just to present their Late Breaking News work will be given the opportunity to register at early-bird rate till **Mar. 12, 2021.**

Important Dates

Feb.12
2021

Abstract/Supplemental
Material Submissions

Mar.19
2021

Notification of
Acceptance

Mar.26
2021

Deadline for
registration

ISCAS 2021 Late Breaking News Co-Chairs

| Jeongjin Roh | Hanyang University ✉ jroh@hanyang.ac.kr |
| Chuan Zhang | Southeast University ✉ chzhang@seu.edu.cn |

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