The SSC chapter was established in 2003 and the joint SSC/CAS chapter in 2013. 74 + 58 members (2020), some overlap between SSC and CAS members.

We arrange and support technical meetings, workshops, and conferences on the topics of fabricated integrated circuit designs, as well as the theory and implementation of circuits and systems.

Our main activity for many years was the Swedish System-on-Chip Conference (SSoCC). Important for the networking of senior researchers and PhD students in Sweden. As the research funding and number of PhD students for "traditional electronics" went down for quite many years, after 2015 the SSoCC was not possible to hold anymore.

2017: organising and sponsoring WEEE conference in Ystad.

Now in "Zombie mode" but hopefully restarting during 2021/22. Joint seminars with EDS.

Chair: Joachim Rodrigues, LU.
V. chair and former chair: Ted Johansson, UU
History: main activity was the SSoCC
The Tenth Swedish System-on-Chip Conference (SSoCC) took place on 3-4 May in mid-eastern Sweden, about 40 km from Linköping, amidst leading IC companies such as Ericsson, STMicroelectronics, Huawei, Canon, Casio, Assemble, Azi, and St. Jude Medical. The conference was organized by the Sweden Chapter of the IEEE Solid-State Circuits Society with support from the Department of Electrical Engineering at Linköping University, an innovative and modern institution that hosts several strong research groups focusing on devices, circuits, and telecommunications research.

Four speakers delivered invited remarks on topics related to future radio challenges, the conference themes:
- Prof. Sjöland surveyed recent developments in switched mode power amplifiers, including polar and Casimir architectures using combinations of different envelope modulation techniques such as PWM, HIC, and power supply modulation.
- Prof. Ryynänen focused on cognitive radios that make better use of the available frequency spectrum. In his talk, he reviewed sensing radio receiver challenges (such as wideband operation and high linearity of the IF part and wide tuning range and fast scanning in the PLL design) and detailed requirements for spectrum sensing and available methods for determining free resources. He stressed the need for more innovation on both system and circuit levels in this area.
- Prof. Svärfjärvi addressed fabrication and challenges of new electronic materials. Key challenges beyond the silicon era to identify viable CMOS compatible processes, edge, and interface passivation concerns to form structures with geometries suitable for devices. Graphene materials, such as graphene with an electron mobility about 100 times higher than for silicon, have the potential for circumventing many of the integration challenges that face carbon nanotube technology for fabricating high mobility planar devices, although he said there is still much work needed in this area.
- Dr. Rolf Sandblad gave a historical overview of his experience in IC technology and design from 1980 to the present.

Thirty-eight technical papers, presented in parallel sessions, complemented the talks by providing

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**Best student paper awards**

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**Conference reports**
Having your own conference: pros and cons

- SSoCC provides financial "independence", but also a financial risk if not handle properly.
- Two IEEE Distinguished Lecturers were invited as speakers at the conference (=> trip payed!).
- Mostly university people attending, less than 10 % from industry & government.
- Excellent for networking in the community.
- Rotation of organizing committee: lot of people involved over the years.
- No peer-review of papers => less work, not "published"
Welcome to IEEE Sweden Solid-State Circuits/Circuits & Systems Joint Chapter!

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Our main activity until 2015 was the Swedish System-on-Chip Conference (SSoCC).
Future plans 2021-2022

- Restart of activities, but how?
- Rotation of board (positions, new people)
- Membership development, especially students