

## Call for Contributions

**1. Inform the Chair:** with the Title of your Contribution

**2. Submission URL:**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ADAPTIVE+2021+Special>

Please select Track Preference as **ETSSCE**

**3. Note:** *For 2021, all events will be held in a hybrid mode: on site or virtual choices (live, prerecorded videos, voiced presentation slides, and .pdf slides). We hope for better times allowing us to return to the traditional on-site scientific events. However, we are ready to adapt any which way the conditions dictate.*

### Special track

## ETSSCE: Emerging Technologies and Software Services for the Circular Economy

### Chairs and Coordinators

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along with

**ADAPTIVE 2021**, The Thirteenth International Conference on Adaptive and Self-Adaptive Systems and Applications

April 18, 2021 to April 22, 2021 - Porto, Portugal

<https://www.iaria.org/conferences2021/CfPADAPTIVE21.html>

The Circular Economy (CE) is a framework for a sustainable future that envisions the transformation from the current linear economy towards its circular counterpart where society produces and consumes goods and services in a regenerative economic cycle. As an interdisciplinary research area, the widespread adoption of the CE depends on the technological progress of various fields, e.g., engineering (how to design sustainable products, how to repair or re-manufacture them), chemistry (how to recycle resources, how to re-extract pure elements), legal and social challenges and many more. In particular, computer science aspires to act as the connection-hub of heterogeneous CE stakeholders and research areas that links the different interdisciplinary fields allowing functionalities/technologies to be combined even if they originate from different domains.

Also, essential to every economy are the interactions and collaborations, the value exchange, and the overall governance of its underlying economic activities. The heterogeneous stakeholder ecosystems and their respective software systems based on the digital technological framework – as envisioned in the CE – require open and interoperable markets for local and global business-related activity enactments. Thus, there is a need to research, develop, and test facilitating eco- and software systems, such as open and interoperable multi-stakeholder marketplaces for goods and services and corresponding collaboration and governance technologies. Including secure, privacy-preserving data and information exchange besides orchestration mechanisms for ad-hoc and on-demand software systems integration in a decentralized and distributed context.

Future and emerging technologies, such as 5G, blockchains, Industry 4.0, the Internet of Things, and autonomous smart machines are critical for the transition to Circular Economy. This special track targets approaches along the research of emerging technologies and software ecosystems and services for the CE.

We solicit both academic, research, and industrial contributions. We welcome technical papers presenting research and practical results, position papers, survey papers addressing the key problems and solutions on any of the above topics, and short papers on work in progress. Topics include, but not limited to:

**The topics of interest for include, but are not limited to:**

- Heterogeneous multi-stakeholder ecosystems and their corresponding infrastructure
- Software Engineering approaches for CE ecosystems and services
- Self-organizing and evolutionary CE services
- Conflict-resolution and governance mechanisms
- Technology enablers for the CE, e.g., IoT Blockchain, 5G, etc.
- CE Service orchestration and composition
- Smart services and service provisioning
- Trust, transparency, security & privacy
- Digital life cycle management
- Case studies and benchmark examples related to all of the above topics
- Experience reports related to all of the above topics
- Models, tools, and methods supporting all of the above topics

**Contribution types**

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Presentations: slide only [slide-deck posted on [www.iaria.org](http://www.iaria.org)]
- Demos: two pages [posted on [www.iaria.org](http://www.iaria.org)]

**Important Datelines**

- Inform the Chair: As soon as you decided to contribute
- Submission: March 4, 2021
- Notification: March 20, 2021
- Registration: April 1, 2021
- Camera-ready: April 1, 2021

*Note: These deadlines are somewhat flexible, providing arrangements are made ahead of time with the chair.*

**Paper Format**

- See: <http://www.iaria.org/format.html>
- Before submission, please check and comply with the editorial rules: <http://www.iaria.org/editorialrules.html>

**Publications**

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iariajournals.org>
- Print proceedings will be available via Curran Associates, Inc.: <http://www.proceedings.com/9769.html>
- Articles will be archived in the free access ThinkMind Digital Library: <http://www.thinkmind.org>

**Paper Submission**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ADAPTIVE+2021+Special>

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**Registration**

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at <http://www.iaia.org/registration.html>

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