

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=ICSNC+2021+Special>

Please select Track Preference as **AI4E**

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

AI4E: AI in Energy Discovery, Recovery, and Production

Chair

Dr. Damian San Roman Alerigi, EXPEC Advanced Research Center, Saudi Aramco, Saudi Arabia
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ICSNC 2021: The Sixteenth International Conference on Systems and Networks Communications

<https://www.iaria.org/conferences2021/ICSNC21.html>

October 03 - 07, 2021 - Barcelona, Spain

Artificial Intelligence (AI) can be an effective tool in energy production. Its applications touch every part of the energy cycle, from helping geophysicists elucidate the underground to enabling automation and efficient use of renewable resources. Active research in these areas involves several topics in machine learning: optimization, neural networks, stochastic modeling, uncertainty quantification. While many applications have been successful, most operate as a “black box.” Recent advances are looking to illuminate the learning process through physics-informed neural network. Several techniques have been posited to encode and discover physical dynamics. This is a promising field of research that could enable countless applications beyond the realm of energy generation and consumption.

This workshop aims to bring together interested researchers and technologists to share their experiences in applying machine learning algorithms in geoscience and energy applications, with special interest in Bayesian learning, physics-informed graph networks, and physics-informed machine learning.

The key topics include, but not limited to:

- Physics-informed machine learning
- Physics-informed graph neural networks
- Machine learning in energy production
- Machine learning in geophysics and geology
- Machine learning in energy production
- Machine learning in reservoir modeling
- Machine learning for energy optimization
- Machine learning for grid optimization
- Uncertainty quantification in machine learning applications

Contribution Types

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

- Presentations: slide only [slide-deck posted on www.iaia.org]
- Demos: two pages [posted on www.iaia.org]

Important Datelines

Inform the Chair or Coordinator: As soon as you decide to contribute

Submission: August 12, 2021

Notification: August 28, 2021

Registration: September 10, 2021

Camera ready: September 10, 2021

Note: The submission deadline is somewhat flexible, providing arrangements are made ahead of time with the chair.

Paper Format

- See: <http://www.iaia.org/format.html>

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

Publications

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iaiajournals.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.iaiasubmit.org/conferences/submit/newcontribution.php?event=ICSNC+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>

Contact

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