Call for Contributions

1. Inform the Chair
2. Submission URL
https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=ACCSE+2022+Special
Please select Track Preference as **VMSMCPS**
3. Note: *For 2022, 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
VMSMCPS: Verification, Modeling, Simulation and Monitoring for Cyber Physical Systems

Chair
Dr. Ratan Lal, Northwest Missouri State University, USA
rlal@nwmissouri.edu

along with

ACCSE 2022: The Seventh International Conference on Advances in Computation, Communications and Services
https://www.iaria.org/conferences2022/ACCSE22.html
June 26, 2022 to June 30, 2022 - Porto, Portugal

VMSMCPS is focusing on original research on concepts and techniques for verification, modeling, simulation, and monitoring from computer science, classical/AI-based controllers, Cyber Physical Systems (CPS) and its specification languages with emphasis on computation aspects and real-world applications.

We are calling for contributions to advance verification, modelling, simulation, and monitoring techniques for cyber physical systems that includes both classical/AI based controllers and continuous systems. In addition, application of cyber physical systems devices (robotics, autonomous systems, unmanned aerial vehicles, etc.) for different real-world problems, such as path planning, motion planning, minimum coverage, minimum fuelling, etc. are welcome.

We encourage contributions ranging from theoretical to practical applications.

Topics include, but not limited to:

a. **Systems**
   i. Artificial Intelligence
   ii. Cyber Physical Systems
   iii. Stochastic/Probabilistic Hybrid Systems
b. **Verification techniques**
   i. Abstraction
   ii. Model Checking
   iii. Bounded Model Checking

iv. SMT solving
v. Refinement-based methods
vi. Compositional techniques
vii. Machine Learning approaches
viii. (Non) Linear Program solving
c. **Modeling and Simulation techniques**
i. Simulink, AADL
ii. Analytical approaches
iii. SMT solving
d. **Monitoring**
i. STL
ii. Probabilistic STL
iii. Hyper STL

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.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Important Datelines

Inform the Chair or Coordinator: As soon as you decide to contribute
Submission: May 12 (earlier, better)
Notification: May 28
Registration: June 7
Camera-ready: June 7

Note: The submission deadline is 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=ACCSE+2022+Special
Please select Track Preference as **VMSMCPS**

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.iaria.org/registration.html

Contacts

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