ICICC-2020
International Conference on Innovative Computing and Communication

Organized by Shaheed Sukhdev College of Business Studies, New Delhi, India
On 21-23rd Feb 2020.

********** CALL FOR PAPERS **********

SPECIAL SESSION ON
Innovations in Software Engineering for Blockchain Technology (ISEBT)

SESSION ORGANIZERS:
Dr. Shailey Chawla, James Cook University, Singapore, <shailey.chawla@jcu.edu.au>
Dr. Bimlesh Wadhwa, National University of Singapore, Singapore, <bimlesh@nus.edu.sg>

Shailey Chawla is an academic for about 15 years and currently a lecturer in Information Technology at James Cook University. She has previously lectured and coordinated Coventry University computer science program at PSB Academy in Singapore. She worked as a post-doctoral fellow at Hong Kong Polytechnic University where she did research in the area of big data analytics. She has done her PhD in the area of software engineering and also holds M.Phil in Computer Science and MCA. Her current research interest is in software engineering for novel technologies and Human Computer Interaction for mobile apps.

Bimlesh Wadhwa is a University educator since 1990, has spent more than 28 years researching and teaching in the area of Software Engineering. She holds an MTech and a PhD in Software Engineering. Currently a Senior Lecturer, she has been a Faculty at the School of Computing, National University of Singapore since year 2000. She has extensive experience in conducting workshops at reputed conferences like ISEC, CHI, OZCHI among others. Her numerous publications appear in reputed International conference proceedings and journals. Her current research interests includes innovative methods of Software Engineering and Human Computer Interactions.

EDITORIAL BOARD: (Optional)
TBA

SESSION DESCRIPTION:

Blockchain technology has unlocked various opportunities to remodel the business processes in a disruptive way. Blockchain operates in a decentralized manner with smart contracts governing the processes without the need of intermediaries and the need of trust between parties. It has a wide array of applications, including supply chain, tourism, healthcare, logistics, and finance. There is growing interest both in industry and research community on Blockchain and smart contracts. Currently, the technology itself is still emerging and there are challenges in developing systems due to lack of specific standards and practices. There are crucial concerns with blockchain based systems such as privacy, security, scalability, governance and performance. The capabilities of blockchain

technology are considered to be transformational and calls for specific tools, paradigms, principles, approaches and research to deal with the challenges.

This special session aims to provide a platform for research directions and novel ideas pertaining to software engineering methods for implementing blockchain technology in businesses. Conceptual, technical and application-oriented contributions are pursued within the scope of this theme.

RECOMMENDED TOPICS:

Topics to be discussed in this special session include (but are not limited to) the following:

- **Software engineering paradigms for blockchain**
- **Functional and non-functional requirements of blockchain based systems**
- **Requirements Engineering for blockchain based systems**
- **Formal specifications**
- **Business Process Modelling for blockchain based systems**
- **Blockchain software architecture**
- **Design of blockchain based systems**
- **Smart contract engineering**
- **Addressing challenges in blockchain based system development**
- **Testing smart contracts**
- **Business processes suitability for Blockchain technology**

SUBMISSION PROCEDURE:

Researchers and practitioners are invited to submit papers for this special theme session **"Innovations in Software Engineering for Blockchain Technology" on or before 01- Dec-2019**. All submissions must be original and may not be under review by another publication. INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE'S GUIDELINES FOR MANUSCRIPT SUBMISSIONS at http://icicc-conf.com/paper_submission.html. All submitted papers will be reviewed on a double-blind, peer review basis.

NOTE: While submitting paper in this special session, please specify **"Innovations in Software Engineering for Blockchain Technology (ISEBT)"** at the top (above paper title) of the first page of your paper.

REFERENCES

Chakraborty, P., Shahriyar, R., Iqbal, A., & Bosu, A. (2018, October). Understanding the software development practices of blockchain projects: A survey. In Proceedings of the 12th ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (p. 28). ACM.

Destefanis, G., Marchesi, M., Ortu, M., Tonelli, R., Bracciali, A., & Hierons, R. (2018, March). Smart contracts vulnerabilities: a call for blockchain software engineering?. In 2018 International Workshop on Blockchain Oriented Software Engineering (IWBOSE) (pp. 19-25). IEEE.

Porru, S., Pinna, A., Marchesi, M., & Tonelli, R. (2017, May). Blockchain-oriented software engineering: challenges and new directions. In 2017 IEEE/ACM 39th International Conference on Software Engineering Companion (ICSE-C)(pp. 169-171). IEEE.

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