Special Session on "Application of Machine Learning for Software Engineering"

Session Chairs

Dr.R.P.Singh
Vice Chancellor of Sri Satya Sai University of Technology and Medical Science, (SSSUTM) Sehore ,Bhopal.
prof.rpsingh@gmail.com

Dr Pushpendra Sharma
Deputy Registrar, Vice Chancellor (Sri Satya Sai University of Technology and Medical Science) ,SSSUTM, Sehore(Bhopal)
dr.pushpendra.69@gmail.com

Neelamadhab Padhy
Associate. Professor
Gandhi Institute of Engineering and Technology,GIET, Gunupur(Autonomous)
neelamadhabphd@gmail.com
Mobile No :7978557037/9437771064
Odisha

Dr. Jitendra Sheetlani
Dean Computer Application
Associate Professor
Sri Satya Sai University of Technology & Medical Sciences, (SSSUTM) Sehore ,Bhopal

Aims & Scope

These techniques are now being used by the practicing engineer to solve a whole range of hitherto intractable problems. This special issue provides an international forum for rapid publication of work describing the practical application of **machine learning** in all branches of **engineering**.

Machine learning deals with the issue of how to build computer programs that improve their performance at some tasks through experience. Machine learning algorithms have proven to be of great practical value in a variety of application domains. Not surprisingly, the field of software engineering turns out to be a fertile ground where many software development and maintenance tasks could be formulated as learning problems and approached in terms of learning algorithms. This book deals with the subject of machine learning applications in software engineering. It provides an overview of machine learning, summarizes the state-of-the-practice in this niche area, gives a classification of the existing work, and offers some application guidelines.

Types of Contributions
Special issues aim to publish four types of articles:
- Survey papers(Tutorials)
- Contributed papers (Detailed expositions of new research or applications.)
- Short papers(Ideas only)
- software reviews(Case Studies)

Topics of this special issue include (but not limited to)

Prospective authors are invited to submit their original unpublished research work.

ML Applications in Software Reuse
Machine learning and statistical methods
ML Applications in Requirement acquisition
Learning algorithms
Software Metrics for fault Prediction
ILP Applications to Software Engineering
ML Applications in Property and Model Discovery
ML Applications in Transformation
ML Applications in Generation and Synthesis
ML Applications in Software Cost Estimation
Applying Rule Induction in Software Prediction
Application of Genetic Algorithms in Software Testing
Reuse beyond code, e.g., reuse of models, specifications, and tests
Reengineering for reuse
Reuse for families of similar systems, software product line techniques
Quality assurance for software reuse, such as testing and verification
Reuse of processes, practices, experience
Transition from improvised to systematic reuse
Agile and light-weight reuse approaches
Software evolution and reuse
Reuse for mobile and ubiquitous applications
Reuse in domains with particular quality requirements
Testability prediction and software release timing,
Reliability prediction,
Size estimation
Quality and maintainability prediction.
Software vulnerability prediction
Categorization of applications
Bug prediction
ML Applications in **Android Apps**
Software diagnosis

Static and dynamic analysis for fault detection
Localization and fixing
Metrics and empirical studies

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The submitted papers must be written in English and describe or original research not published nor currently under review by other journals or conferences. Parallel submissions will not be accepted. All submissions should be in the Springer format. Papers should contain up to 5 keywords. Papers will be evaluated for originality, significance, clarity, and soundness.

Moreover, some of the selected high quality papers of the conference with extended versions will be published in reputed journals of International Publishers.

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Please send your paper (only in word format) to **neelamadhabphd@gmail.com** with **'MLSE-2018'** mentioned in the subject line.

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IMPORTANT DATES

paper Submission Deadline   - 28th September 2018
Notification of Acceptance   - 10th November 2018
Camera Ready Copy Submission
& Author Registration   - 10th November 2018

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