

Call for Papers:

Special Issue on “Machine Learning Approach to Fault Diagnosis in Engineering Systems”

## International Journal of Engineering, Science and Technology (IJEST)

### Call for Papers

## Special Issue on: “Machine Learning Approach to Fault Diagnosis in Engineering Systems”

Fault diagnosis is the process of tracing a fault by means of its symptoms, applying knowledge and analyzing test results. Accurate diagnosis of faults in complex engineering systems requires acquiring the information through sensors, processing the information using advanced signal processing algorithms, extracting required features for efficient classification or identification of faults. Identification of faults and subsequent remedial action has implications in increased productivity and reduced maintenance cost in various industrial applications. Machine learning methods which involve feature extraction, feature selection and classification of faults give a systematic approach to fault diagnosis and can be used in automated or unmanned environments. This has got increased applications in various industrial sectors like manufacturing, automotive, marine and aerospace to maximize equipment up time and to minimize maintenance and operating costs

The objective of the issue is to invite contributions from researchers, academicians and practitioners from industries and research establishments in the area of machine learning methods for fault diagnosis in engineering systems. The topics to be covered include, but not limited to:

- Fault detection, fault isolation and advanced diagnostic technologies
- Machine condition monitoring, Tool condition Monitoring, Structural health monitoring
- Advanced Signal processing for fault diagnosis,
- Feature extraction and feature selection methods
- Artificial Neural Networks, Fuzzy logic, Support Vector Machines, Kernel methods and Evolutionary algorithms in fault diagnosis
- Vibration monitoring and control

### Submission Guidelines and Important Dates

Manuscripts should be in English and normally not exceed 7000 words in length (single column, 10 pt running text, double spacing, Times New Romans). All contributions will be subjected to a blind review process. Manuscripts must be sent electronically to the following email addresses:

ki\_ram@ettimadai.amrita.edu, lvijay@iitm.ac.in, sa\_oke@yahoo.com

with the subject title as: Special Issue on “Machine Learning Approach to Fault Diagnosis in Engineering Systems” in Word document (Microsoft Word 97/2000/2003 version) not later than January 30, 2010. The official website of the journal is found at [www.ijest-ng.com](http://www.ijest-ng.com).

Important dates are as follows (Revised timetable):

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|--|---------------------------|
| Deadline for full paper submission:    | <b>September 30, 2010</b> |
| First turn of paper review:            | <b>October 30, 2010</b>   |
| Second turn of paper review:           | <b>November 30, 2010</b>  |
| Final (Camera-ready) paper submission: | <b>December 30, 2010</b>  |

### Addresses of Guest Editors:

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