SOFTWARE MINING AND ANALYSIS
GIAN (MHRD, Govt. of India) Supported Advanced Level Course @ NITK Surathkal

Overview
This course introduces participants to both fundamental concepts and advanced techniques and tools for software mining and analysis that can help to improve software reliability, maintainability, and productivity. It will cover topics in software testing, debugging, and maintenance, and exposes participants to active research being done in the field of software engineering. It will draw techniques and tools from static and dynamic program analysis, data mining, information retrieval, and empirical studies to mine and analyze various software data, which includes but is not limited to source code, executable code, code repository records, code specifications, test cases, bug reports, execution profiles, and documentations. The course primarily aims to equip participants with knowledge and skills to carry out studies in the field of software engineering. Some knowledge and skills learned can also be used in participants' own research and development projects.

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<th>Schedule</th>
<th>October 17, 2016 to October 21, 2016</th>
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| Course Contents   | 1. Software Testing  
|                   | 2. Software Reliability  
|                   | 3. Software Maintenance  
|                   | 4. Software Re-engineering  
|                   | 5. Program Analysis  
|                   | 6. Introduction to Software Mining  
|                   | 7. Data Mining (DM) for Software Engineering (SE)  
|                   | 8. Information Retrieval (IR) for Software Engineering  
<p>|                   | 10. Engineering Software as a Service (SaaS)  |
| Host Institute    | NITK Surathkal, Mangalore (<a href="http://nitk.ac.in/">http://nitk.ac.in/</a>) |
| Max. No.of Participants | Limited to 50 |</p>
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<th><strong>You Should Attend if...</strong></th>
<th><strong>Course Registration Fee</strong></th>
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| • Engineers and professionals from industries, service and government organizations including R&D laboratories.  
• Student students at all levels (BTech/MSc/MTech/PhD) or Faculty from reputed academic institutions and technical institutions. | • **Participants from abroad**: US $500  
• **Industry/ Research Organizations**: Rs. 10,000/-  
• **Academic Institutions**: Rs. 5,000/- |

The above fee includes all instructional materials, computer use and internet facility. The participants will not be given any TA/DA and boarding / lodging support. Participant can bring their laptop for effective utilization of course delivery.
David Lo is an assistant professor in School of Information Systems, Singapore Management University. He is working in the intersection of software engineering and data mining research. He is an active researcher in the emerging field of software analytics which focuses on the design and development of specialized data analysis techniques to solve software engineering problems. He has delivered invited keynote speeches and lectures on the topic in many venues, such as the 2010 Workshop on Mining Unstructured Data, the 2013 Génie Logiciel Empirique Workshop, the 2014 International Summer School on Leading Edge Software Engineering, and the 13th Estonian Summer School on Computer and System Science. He received the Lee Foundation Fellow for Research Excellence from the Singapore Management University in 2009 for his research contribution in software engineering. He has won a number of international research awards including two ACM distinguished paper awards. He has served/is currently serving in the program and/or organizing committees of many top/major software engineering and data mining international conferences including ICSE and KDD. He also serves in the steering committee of the IEEE International Conference on Software ANalysis, Evolution and Reengineering, and the IEEE International Working Conference on Source Code Analysis and Manipulation. He is also an editorial board member of the Empirical Software Engineering journal and Neurocomputing journal (software section).