Dr. Ruchika Malhotra is currently pursuing Post-Doctoral Research at the Department of Computer and Information Science, Indiana University Purdue University, USA. She is an Assistant Professor in the Department of Software Engineering at Delhi Technological University (formerly known as Delhi College of Engineering) in Delhi, India. She is the Executive Editor of Software Engineering: An International Journal. She was an Assistant Professor at the University School of Information Technology of Guru Gobind Singh Indraprastha University in Delhi, India. Prior to joining the school, she worked as a full-time research scholar and received a doctoral research fellowship from the University School of Information Technology of Guru Gobind Singh Indraprastha University in Delhi, India. She received her master’s and doctorate degree in software engineering from the University School of Information Technology of Guru Gobind Singh Indraprastha University in Delhi, India. She is the co-author of the book titled Object Oriented Software Engineering, which was published by PHI Learning. She has received IBM Faculty Award 2013. Her research interests are in software testing, improving software quality, statistical and adaptive prediction models, software metrics, neural nets modeling, and the definition and validation of software metrics. She has published more than 80 research papers in international journals and conferences. Malhotra can be contacted by e-mail at: ruchikamalhotra2004@yahoo.com

Software systems are exposed to various types of defects. The timely identification of defective classes is essential in early phases of software development to reduce the cost of testing the software. Software metrics can be used in conjunction with defect data to develop models for predicting defective classes. There have been various machine learning techniques proposed in the literature for analyzing complex relationships and extracting useful information from problems in less time. This talk focuses on the work where a comprehensive comparison and assessment of 18 machine learning techniques for investigating the effect of Object-Oriented metrics on defective classes is made.

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