## Y. RAGHU BABU REDDY

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## **ACADEMIC QUALIFICATION**

| Ph. D. | Computer Science, Colorado State University, Fort Collins, CO | 2006 |
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| M. S.  | Computer Science, Colorado State University, Fort Collins, CO | 2001 |
| B. E.  | Computer Science and Engineering, University of Madras, India | 1999 |

## **WORK EXPERIENCE**

| 2013 – Current | Associate professor and Head, Software Engineering Research Center,      |
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|                | IIIT Hyderabad, India  |
| 2013 - 2018    | CA Endowed Faculty Chair, IIIT Hyderabad, India                          |
| 2012 - 2013    | IIIT Head, IIIT-CA innovation center, CA Technologies, Hyderabad, India. |
| 2011 - 2012    | Adjunct Faculty, Department of Software Engineering,                     |
|                | Rochester Institute of Technology, Rochester, NY                         |
| 2005 - 2011    | Assistant Professor, Department of Software Engineering,                 |
|                | Rochester Institute of Technology, Rochester, NY.                        |
| 2000 - 2005    | Instructor/ Teaching Assistant, Department of Computer Science,          |
|                | Colorado State University, Fort Collins, CO                              |

**RESEARCH INTERESTS**: Software Engineering, HCI, Knowledge Engineering.

## **PUBLICATIONS**

(Raghu's students have been marked with \*)

## **Patent Pending:**

- N Mathur, SA Karre, YR Reddy, "System and method for evaluating and facilitating customized guidelines using code pattern analysis", US Patent App. 16/587, 007, April 2020.
- YR Reddy, LM Sanagavarapu, V Varma, "System and method for retrieving and extracting security information, US Patent App. 16/421, 343, November 2019.

### **Book/Editorship**

- "Aspect Oriented Software Development: An Approach to Composing UML Design Models", VDM Verlag, ISBN: 978-3-639-12084-4, February 2009.
- (Eds) "Proc. of 7<sup>th</sup> Intl. Conf. on Software Engineering" (CONSEG), November 2013.
- (Eds) Joint Proc. of 2<sup>nd</sup> Modelling Symposium (ModSym) and the workshop on Software Architectures for Adaptive Autonomous Systems (SAAAS), Co-located with 9<sup>th</sup> India Software Engineering Conf. (ISEC), CEUR, February 2016.
- (Eds) Software: Practice and Experience Special Issue on software reuse, Volume 47, Issue 7, July 2017, Wiley.

## **Book Chapters/Journal articles**

1. S Bhatore\*, L Mohan\*, YR Reddy, "Machine learning techniques for credit risk evaluation: a systematic literature review", Journal of Banking and Financial Technology, pp. 1-28, Springer,

- June 2020.
- 2. SA Karre\*, N Mathur\*, YR Reddy, "Understanding usability evaluation setup for VR products in Industry: a review study", ACM SIGAPP Applied Computing Review, 19(4), pp:17-27, ACM, January 2020
- 3. SA Karre\*, L Mohan\*, YR Reddy, KV Raghavan, RD Naik, R Purandare, A Karkare, "A report on 1st Software Engineering Research in India (SERI) update meeting", SIGSOFT Software Engineering Notes, 44(3), ACM, November, 2019.
- 4. SPVRJ Gollapudi, V Choppella, LM Sangavarapu\*, S Chimalakonda, YR Reddy, "Promoting better financial inclusion through web page transformation a systematic literature review", Journal of Banking and Financial Technology, vol 3, Issue 2, Springer, October 2019.
- 5. LM Sanagavarapu\*, GR Gangadharan, R Reddy, "KIET framework for cloud adoption: India Banking case study", International Journal of Cloud Applications and Computing, Vol 8, Issue 4, IGI Global, October 2018.
- Sai Anirudh\*, Y. Raghu Reddy. "Heuristic Approaches to Improve Product Quality in Large Scale Integrated Software Products", Evaluation of Novel Approaches to Software Engineering, Computing, Communication and Information Systems (CCIS), Vol. 599, pp:80-97, Springer, February 2016.
- 7. Lalit Mohan\*, Neeraj Mathur\*, Y. Raghu Reddy. "Improving Mobile banking usability based on Sentiments", Evaluation of Novel Approaches to Software Engineering, Computing, Communication and Information Systems (CCIS), Vol. 599, pp:180-194, Springer, February 2016.
- 8. Sridhar Chimalakonda, Y. Raghu Reddy, and Rakesh Shukla. "Moving Beyond: Insights from 1st Intl. worksop on software engineering research and practices (SER&IPs 2014), In ACM Software Engineering Notes, March 2015.
- 9. Ashish Sureka, Y. Raghu Reddy, Masateru Tsunoda, and Pornsiri Muenchaisri. "A Report on Software Engineering Education Workshop (SEEW) 2014 Co-located with Asia-Pacific Software Engineering Conf. 2014, In ACM Software Engineering Notes, January 2015.
- 10. Jeffrey Mahmood\* and Y. Raghu Reddy. "Usability of Refactoring tools for Java Development", SETLabs Briefings, 2011.
- 11. B. Henderson-Sellers, R. France, G. Georg, and R. Reddy. "A method engineering approach to developing aspect-oriented modeling processes based on the OPEN process framework", Journal of Information and Software Technology, 49(7):761-773, ISSN:0950-5849, July 2007.
- 12. Y. R. Reddy, S. Ghosh, R. B. France, G. Straw, J. M. Bieman, N. McEachen, E. Song, and G. Georg. "Directives for Composing Aspect-Oriented Design Class Models", Transactions on Aspect-Oriented Software Development 1, Springer LNCS Vol.3880, pp:75-105, February 2006.
- 13. ASolberg, D Simmonds, RReddy, R France, S Ghosh, and J Aagadel. "Developing Distributed Services Using an Aspect Oriented Model Driven Framework", Intl. Journal of Cooperative Information Systems, Special issue on Enterprise Distributed Object Computing, 15(4): 535-564, December 2006.

#### Conference/Workshops

- 14. R. Mittal\*, SA Karre\*, YR Reddy, "Designing Endless Paths in Virtual Reality Environments", Intl. Conference on Human-Computer Interaction Accepted (July 2021)
- 15. M. Kuri\*, SA Karre\*, YR Reddy, "Understanding Software Quality Metrics for Virtual Reality Products A Mapping Study", Proc. Of 14<sup>th</sup> Innovations in Software Engineering Conference (ISEC) Accepted (February 2021).
- 16. SA Karre\*, L Mohan\*, YR Reddy, Using project based approach to teach design patterns: An experience report", Proc. Of 14<sup>th</sup> Innovations in Software Engineering Conference (ISEC) Accepted (February 2021).
- 17. D. Parashar, LM Sanagavarapu\*, YR Reddy, SQL Injection Vulnerability from Text", Proc. Of 14<sup>th</sup> Innovations in Software Engineering Conference (ISEC) Accepted (February 2021).

- 18. S Bhatore\*, LM Sanagavarapu\*, YR Reddy, SVL Chandra\*, "Software patterns to identify credit risk patterns", IEEE 17<sup>th</sup> India council International Conference (INDICON), December 2020, Delhi, India.
- 19. S. Shekar\*, SA Karre\*, YR Reddy, R Gupta, "Detecting Astigmatism condition in Human Eye using VR", 17<sup>th</sup> Euro VR international conference, November 2020, Valencia, Spain.
- 20. LM Sanagavarapu\*, M Damaraju, RS Pillutla, V Choppella, YR Reddy, PRaman. "An SE approach for CoCo Learning of Virtual Labs", IEEE 32nd Conf. on Software Engineering Education and Training (CSEET), November 2020, Munich, Germany.
- 21. S. Shekar\*, PR Pesaldinne, SA Karre, YR Reddy, "VREye: Exploring Human Visual Acuity Test Using Virtual Reality", Intl. Conference on Human-Computer Interaction, Denmark, July 2020.
- 22. RS Pillutla, L Mohan\*, V Choppella, A Jesrani, P Raman, YR Reddy, "Towards massively open online virtual internships in computing education", The 10<sup>th</sup> Intl. conf. on Technology for Education (T4E), December 2019, Goa, India
- 23. L Mohan\*, J Ali, SMA Rizwi, YR Reddy, DM Sharma, "Text cohesion in CQA Does it impact rating?", The 7<sup>th</sup> Intl. Conf. on Mining Intelligence and Knowledge Exploration (MIKE), December 2019, Goa, India.
- 24. V Iyer\*, L Mohan\*, YR Reddy, M Bhatia, "A survey on ontology enrichment from text", The 16<sup>th</sup> Intl. Conf. on Natural Language Processing (ICON), December 2019, Hyderabad, India
- 25. S Agrawal\*, LM Sanagavarapu\*, YR Reddy, "FACT-Fine Grained Assessment of web page CredibiliTy", TENCON IEEE Region 10 conference, October 2019, Kerala, India.
- 26. N Mathur\*, SA Karre\*, YR Reddy, "Grouping semantically related change-sets to enhance identification of logical coupling", The 31<sup>st</sup> Intl. Conf. on software engineering and knowledge engineering (SEKE), July 2019, Lisbon, Portugal.
- 27. P. Nitsala\*, KV Nori, R. Reddy, "Software quality models: A systematic mapping study", IEEE/ACM International conf. on software and system processes (ICSSP), May 2019, Montreal, Canada.
- 28. SA Karre\*, N Mathur\*, YR Reddy, "Usability evaluation of VR products in industry a systematic literature review", 34<sup>th</sup> ACM/SIGAPP Symposium on Applied Computing (SAC), April 2019, Limassol, Cyprus.
- 29. SA Karre\*,N Mathur\*, YR Reddy, Is Virtual Reality product development different? An empirical study on VR development practices", Proc. Of 12<sup>th</sup> Innovations in Software Engineering Conference (ISEC), February 2019, Pune, India.
- 30. S Agrawal, L Mohan\*, YR Reddy, "Automated credibility assessment of web page based on genre", International Conference on Big Data Analytics, December 2018, India.
- 31. S Ahmad, LM Sanagavarapu\*, R Pal, YR Reddy, "Rank aggregation approach for identifying critical information infrastructure, International Conference on Advances in Computing, Communications and Informatics (ICACCI), India, September 2018.
- 32. A Budhiraja, K Dutta, M Shrivastava, YR Reddy. "Towards Word Embeddings for improved Duplicate Bug Report Retrievel in Software Repositories", The 4th ACM SIGIR Informational Conf. on the Theory of Information Retrieval (ICTIR), September 2018.
- 33. S Swain, LM Sanagvarapu\*, V Choppella, YR Reddy. "Model Driven Approach for Virtual Lab Authorig Chemical Sciences Labs", Proc. of the 18<sup>th</sup> IEEE Intl. Conf. on Advanced Learning Technologies (ICALT), July 2018.
- 34. N Mathur\*, SA Karre, YR Reddy. "Usability Evaluation Framework for Mobile Apps using Code Analysis", Proc. of the Evaluation and Assessment in Software Engineering (EASE), June 2018, Christchurch, Newzealand.
- 35. A Budhiraja, YR Reddy, M Shrivastava. "Poster: LWE: LDA refined Word Embeddings for duplicate bug report detection", ICSE, Gothenburg, Sweden, May 2018.
- A Budhiraja, K Dutta, YR Reddy, M Shrivastava. "Poster: DWEN: Deep Word Embedding Network for Duplicate Bug Report Detection in Software Repositories", ICSE, Gothenburg, Sweden, May 2018.
- LM Sanagavarapu\*, YR. Reddy. "Crowdsourcing Security Opportunities and Challenges", In Proc. of IEEE/ACM 11<sup>th</sup> Intl. Workshop on Cooperative and Human Aspects of Software (CHASE), colocated with ICSE, Gothenburg, Sweden, May 2018.
- 38. N Mathur\*, SAKarre\*, LM Sanagavarapu, YR Reddy. "Analysis of FinTech Mobile App Usability for Geriatric Users in India", Proc. of the 4<sup>th</sup> Intl. Conf. on HCI and UX, Indonesia, March, 2018.
- 39. LM Sanagavarapu\*, S Sarangi\*, YR Reddy, V Varma. "Fine Grained Approach for Domain Specific

- Seed URL Extraction, Proc. of the 51st Hawaii Intl. Conf. on System Sciences (HICSS), Hawaii, USA, January 2018.
- 40. V Sharma, R Musarrat, S Chimalakonda, YR Reddy. "Muse: A Musically inspired Game to Teach Arrays and Linked Lists", Proc. of the 25<sup>th</sup> Intl. Conf. on Computer in Education (ICCE), Christchurch, New Zealand, December 2017.
- 41. LM Sanagavarapu \*, GR Gangadharan, YR Reddy. "COMPAC A pricing model for Community Cloud", 6<sup>th</sup> Intl. Conf. on Advances in Computing, Communications and Informatics (ICACCI), Manipal, India, September 2017.
- 42. LM Sanagavarapu\*, S Gollapudi, S Chimalakonda, YR Reddy, V Choppella. "A Lightweight Approach for Evaluation Sufficiency of Ontologies". The 29<sup>th</sup> Intl. Conf. on Software Engineering & Knowledge Engineering (SEKE), July 2017, Pittsburgh, USA.
- 43. L Sanagavarapu\*, S Sarangi\*, Y. Raghu Reddy. "ABC Algorithm for URL Extraction". Intl. workshop on The practice of the Open web, co-located with Intl. Conf. on Web Engineering, Rome, Italy, June 2017.
- 44. S Gollapudi, S Chimalakonda, V Choppella, YR Reddy. "An Aspect Oriented Approach for Renarrating Web Content", In Proc. of 10th India Software Engineering Conf. (ISEC), Jaipur, India, February 2017.
- 45. L Mohan\*, P Raman, V Choppella, YR Reddy. "A Crowdsourcing Apprach for Quality Enhancement of eLearning Systems", In Proc. of 10th India Software Engineering Conf. (ISEC), Jaipur, India, February 2017.
- 46. S Khandelwal\*, S Sripada\*, YR Reddy. "Impact of Gamification on Code Review process: An Experimental Study", In Proc. of 10th India Software Engineering Conf. (ISEC), pp. 122-126, Jaipur, India, February 2017.
- 47. Y Maheswari\*, YR Reddy. "A study on Migrating Flash files to HTML5/JavaScript", In Proc. of 10th India Software Engineering Conference (ISEC), Jaipur, India, February 2017.
- 48. S Sripada\*, YR Reddy, S Khandelwal\*. "Architecting an extensible framework for Gamifying Software Engineering concepts", In Proc. of 9th India Software Engineering Conf. (ISEC), Goa, India, February 2016.
- 49. N Mathur\*, YR Reddy. "Correctness of semantic code smell detection tools", Joint Proc. of the 3rd Intl. Workshop on Quantitative Approaches to Software Quality (QuASoQ), the Workshop on Alternate Workforces for Software Engineering (WAWSE) and the 1st Intl. Workshop on Case Method for Computing Education (CMCE), at 22<sup>nd</sup> APSEC, December 2015.
- 50. S Karre\*, YR Reddy. "An Industrial Case Study on Improving Quality in Integrated Software Product using defect dependency", Joint Proc. of the 3rd Intl. Workshop on Quantitative Approaches to Software Quality (QuASoQ), the Workshop on Alternate Workforces for Software Engineering (WAWSE) and the 1st Intl. Workshop on Case Method for Computing Education (CMCE), at 22<sup>nd</sup> APSEC, December 2015.
- 51. Y Maheshwari\*, YR Reddy. "Transformation of Flash files to HTML5 and JavaScript", In Proc. of Australasian Software Engineering Conf. (ASWEC), Adelaide, Australia, September 2015.
- 52. S Sripada\*, YR Reddy. "Code comprehension activities in Undergraduate Software Engineering Course A case study, In Proc. of Australasian Software Engineering Conf. (ASWEC), Adelaide, Australia, September 2015.
- 53. S Sripada\*, YR Reddy, A Sureka. "In support of Peer Code Review and Inspection in an Undergraduate Software Engineering Course: A Case Study", In Proc. of CSEET 2015, Co-located with ICSE 2015, Florence, Italy, May 2015.
- 54. S Anirudh\*, YR Reddy. "A Defect Dependency Based Approach to Improve Software Quality In Integrated Software Products", In Proc. of 10th Intl. Conf. on Evaluation of Novel Approaches to Software Engineering, Barcelona, Spain, April 2015.
- 55. Lalit Mohan\*, Neeraj Mathur\*, Y. Raghu Reddy. "MAUI: Mobile Application Usability Index", In Proc. of 10th Intl. Conf. on Evaluation of Novel Approaches to Software Engineering, Barcelona, Spain, April 2015.
- 56. YR Reddy, A Shankar\*, and M Malolan\*. "Incremental Aspect Weaving An approach to faster AOP learning", In Proc. of 30<sup>th</sup> ACM/SIGAPP Symposium on Applied Computing (SAC), Salamanca, Spain, April 2015.
- 57. P Cherukupalli\* and YR Reddy. "Reengineering Enterprise Wide Legacy BFSI Systems Industrial Case Study", In 8<sup>th</sup> India Software Engineering Conf. (ISEC), Bengaluru, India, February 2015.

- 58. JAgarwal, U Rastogi, P Pandey, N Choudhary, V Choppella, and R Reddy. "Large Scale Web Page Optimization of Virtual Labs", in 6<sup>th</sup> IEEE Intl. Conf. on Technology for Education (T4E), Kerala, India, December 2014.
- 59. N Choudhary, V Choppella, R Reddy, and T Ravula. "Any Time Virtual Labs: On Portable Media and As Debian Packages", in 6<sup>th</sup> IEEE Intl. Conf. on Technology for Education (T4E), Kerala, India, December 2014.
- 60. Kesav Nori, Y. Raghu Reddy, and Sridhar Chimalakonda. "Challenges for Software Engineering in Educational Technologies". Invited Paper. In Proc. of 1st IEEE Intl. Conf. on Contemporary Computing and Informatics (IC3I), Mysore, India, November, 2014.
- 61. YR Reddy and K Nori. "Teaching Software Product Engineering in Undergraduate Computer Science Curriculum", in Workshop on Technology-Driven Software Engineering Curriculum Development at the 27<sup>th</sup> Conf. on Software Engineering Education and Training (CSEE&T), Klagenfurt, Austria, April 2014.
- 62. JMahmood\* and YR Reddy. "Automated Refactorings in Java: Using IntelliJ IDEA to extract and propagate constants", Proc. of 4<sup>th</sup> IEEE Intl. Advance Computing Conf., Gurgaon, India, February 2014.
- 63. M Asif\* and YR Reddy, "JIFFY: A framework for encompassing Aspects in testing and debugging software, In Proc. of Automated Software Engineering workshop at 35th ICSE, San Francisco, USA, May, 2013.
- 64. YR Reddy, "Software engineering programs at the undergraduate level", in Software Engineering Education workshop, at 5<sup>th</sup> India Software Engineering Conf. (ISEC), February, 2012, Kanpur, India.
- 65. YR Reddy, P Sankaran\* and O Cengiz\*. "Possible abstractions of Aspects from Agent Oriented Systems", In Proc. of Intl. Conf. on Software Theory and Practice (SETP), Florida, USA, July 2010.
- 66. YR Reddy and J Jordan\*. "A study on Impact of Aspects on Maintainability in a Model-driven Development Framework", Proc. of workshop on Advances in Model Based Software Engineering, at 3rd India Software Engineering Conf. (ISEC), February 2010, India.
- 67. J Mahmood\* and YR Reddy. "Usability of Refactoring tools for Java Development", Proc. of 1<sup>st</sup> Indian Workshop on Reverse Engineering, at 3<sup>rd</sup> India Software Engineering Conf. (ISEC), February 2010, India
- 68. V Rathod\* and YR Reddy. "Role of Early Aspects in Software Maintenance Projects", In Proc. of the 2009 Intl. Conf. on Software Engineering Research and Practice, Las Vegas, Nevada, USA, July, 2009.
- 69. D Simmonds, YR Reddy, E Song, and E Grant. "A comparison of Aspect oriented approaches to Model Driven Engineering", In Proc. of the 2009 Intl. Conf. on Software Engineering Research and Practice, Las Vegas, Nevada, USA, July, 2009.
- 70. R France, F Fleurey, R Reddy, B Baudry, and S Ghosh, "Providing Support for Model Composition in Metamodels", In Proc. of the 11th IEEE Intl. Enterprise Distributed Object Computing (EDOC), Annapolis Maryland, USA, 15-19 October 2007.
- 71. R Reddy, A Solberg, R B. France, and S Ghosh, "Composing Sequence Models using Tags", MoDELS workshop on Aspect Oriented Modeling, Genova, Italy, October, 2006.
- 72. R Reddy, R France, S Ghosh, F Fleurey, B Baudry. "Model Composition A Signature-Based Approach", In the Aspect Oriented Modeling (AOM) at MODELS/UML 2005 Conf., Montego Bay, Jamaica, October, 2005.
- 73. Benoit Baudry, Franck Fleurey, Robert France, and Raghu Reddy. "Exploring the Relationship between Model Composition and Model Transformation", In the Aspect Oriented Modeling (AOM) at MODELS/UML 2005, Montego Bay, Jamaica, October, 2005.
- 74. A Solberg, R France, and R Reddy. "Navigating the MetaMuddle" In Proc. of the 4<sup>th</sup> Workshop in Software Model Engineering (WiSME) at MODELS/UML 2005, Montego Bay, Jamaica, October, 2005.
- 75. D Simmonds, A Solberg, R Reddy, R France, and S Ghosh. "An Aspect Oriented Model Driven Framework", Proc. of the Ninth IEEE "The Enterprise Computing Conf." (EDOC 2005), Enschede, Netherlands, 19-23 September, 2005.
- 76. A Solberg, D Simmonds, R Reddy, S Ghosh, and R France. "Using Aspect Oriented Technologies to Support Separation of Concerns in Model Driven Development", Proc. of the 29th Annual Intl. Computer Software and Applications Conf. (COMPSAC), Edinburgh, Scotland, July, 2005.

- 77. E Song, R Reddy, R France, I Ray, G Georg and R Alexander. "Verifiable Composition of Access Control Features and Applications", Proc. of the 10th ACM Symposium on Access Control Models and Technologies (SACMAT), Stockholm, Sweden, June, 2005.
- 78. R Reddy, R France and G Georg. "Aspect Oriented Modeling approach to Analyzing Dependability Features", In the Aspect Oriented Modeling (AOM) workshop at AOSD conference, Chicago, USA, March, 2005.
- 79. S Homb, G Georg, R France, R Reddy, and J Bieman. "Predicting availability of systems using BBN in Aspect-Oriented Risk-Driven Development", Proc. of the Symposium on Risk Management and Cyber-Informatics (RMCI), Orlando, Florida, USA, July 2005.
- 80. G Georg, YR Reddy and R France. "Specifying Cross-cutting Requirement Concerns", Proc. of Seventh Intl. Conf. on UML Modeling Languages and Applications, Lisbon, Portugal, October 2004.
- 81. YR Reddy. "An Aspect Oriented Approach to Early Software Development", Proc. of Doctoral Symposium, 7th Intl. Conf. on the UML, Lisbon, Portugal, October 2004.
- 82. S Ghosh, N Bawa, S Goel and YR Reddy. "Validating Run-Time Interactions in Distributed Java Applications", Proc. of the 8th IEEE Intl. Conf. on Engineering of Complex Computer Systems, (ICECCS), Greenbelt, Maryland, USA, December 2002.

### **Technical Reports**

- 1. "Does your Bug Tracking tool suit your needs? A study on open source bug tracking tools", arXiv preprint arXiv:1706.06799, June 2017
- 2. "Model based approach to study defect dependency in large scale integrated software products", arXiv preprint arXiv:1706.05037, June 2017.
- 3. "Case study on Impact of Aspect Oriented Design on Maintainability", Rochester Institute of Technology, 2008.
- 4. "An Approach to Composing Aspect-Oriented Design Models", PhD Dissertation Report, Colorado State University, April 2006.
- 5. "An Aspect-based Approach to Modeling and Analyzing Dependability Features", Technical Report CS04-109, Colorado State University, November 2004.
- 6. "Representing Patterns as Role Models", Master's Technical Report, Colorado State University, Fort Collins, November, 2001.
- 7. "Structural analysis of Design patterns", Project Technical Report, Colorado State University, Fort Collins, May 2000.
- 8. "An Efficient interleaving of Audio and Video files", Bachelor's Thesis, University of Madras, Madras, India, April 1998.

### **Invited Talks/Presentations**

- 1. "Towards conducting Systematic Literature Review and Systematic Mapping Studies", IIIT Hyderabad, May 2020
- 2. "Text cohesion in CQA Does it impact rating?", MIKE 2019, Goa, India, December 2019
- 3. "Usability Evaluation of Mobile Applications", Invited Talk, ICREMPS, Bhopal, India May 2019
- 4. "AI and software testing", Invited talk VJIT, Hyderabad, July 2019
- 5. "Usability Evaluation of Mobile Applications", ACM ESP talk at VVIT and KHIT, Guntur, August, 2018.
- 6. "Usability Evaluation of Mobile Applications", Invited talk at workshop on Research Innovation in Software Engineering, SSN College of Engineering, Chennai, December, 2017
- 7. "Programming and Engineering", Keynote talk at Programming Contest, Ace Engineering College, Hyderabad, India, September 2017.
- 8. "Usability Evaluation", Invited talk at National workshop on Recent Trends in Software Testing, NIT, Rourkela, India, July, 2017
- 9. "Software Refactoring", ACM Eminent Speaker talk at Coimbatore Institute of Technology and Dr. NGP college of Engineeing, Coimbatore, India, March 2017.
- 10. "Model Driven Development and Aspectization", Key note at National workshop on Model Driven Software Development at KL University, Vijaywada, India, September 2016.

- 11. "Software Maintenance", Invited talk at IDRBT, Hyderbad, July 2016.
- 12. "Refactoring tools", Invited talk at Vasavi Engineeing College, Hyderabad, India, December 2016.
- 13. "Transformation of Flash files to HTML5 and JavaScript", Australasian Software Engineering Conf. (ASWEC), Adelaide, Australia, September 2015.
- 14. "Code comprehension activities in Undergraduate Software Engineering Course A case study, In Proc. of Australasian Software Engineering Conf. (ASWEC), Adelaide, Australia, September 2015.
- 15. "Are you a Software Engineering or Is it just your designation?", ACM Eminent talk at Guru Nanak Institution, Hyderabad, India, August 2015.
- 16. "Refactoring", Invited talk at KL University, Vijayawada, India, April 2015.
- 17. "Becoming a Software Engineer", Key note at Malla Reddy College for Women, Hyderabad, India, January 2015.
- 18. "Introducing Software Product Engineering in Undergraduate Program", at Software Engineering Education Workshop, Co-located with APSEC, Jeju, Korea, December 2014.
- 19. "Are you a Software Engineering or Is it just your designation?", at 2<sup>nd</sup> Computer Measurement Group (CMG) Event, Hyderabad, India, July 2014.
- 20. "Towards an ecosystem of Usable Refactoring tools", National Institute of Technology, Surathkal (NIT-K), Karnataka, India, March 2014.
- 21. "Model driven development: Challenges and Opportunities", Indian Institute of Technology (IIT) Hyderabad, India, February 2014.
- 22. "Service Oriented Architecture Who? What? Where? When? How? and Why?" Keynote at AICTE Seminar on Service Oriented Architecture and Web Services, LBR Collge of Engineering, Andhra Pradesh, India, August 2013.
- 23. "Addressing Non-Orthogonality in Model driven development: Challenges and Opportunities", at Vellore Institute of Technology, Chennai, April 2013.
- 24. "Usability Engineering", at Vasavi College of Engineering, Hyderabad, India, April 2013.
- 25. "Moving from Plan-driven to Agile methodologies", at Vasavi College of Engineering, Hyderabad, India, April, 2013.
- 26. "Implementing cloud services using AOP", at the workshop on Leveraging Requirements Engineering Research in Industry and Academia held in conjunction with 6<sup>th</sup> India Software Engineering Conf., New Delhi, Feb, 2013.
- 27. "Can Aspects be Used in Testing?", at Ideabytes Seminar Series, Hyderabad, India, July 2012.
- 28. "Model driven development using UML 2.0: Challenges", at Progress Software, Hyderabad, India, August 2011.
- 29. "Aspects and Model driven development", at Department of Computer Science, Rochester Institute of Technology, USA, January, 2010.
- 30. "Aspect oriented software development", Invited talk at the Department of Computer Science, Rochester Institute of Technology, USA, January, 2008.
- 31. "An aspect oriented approach to software design", Invited talk at the Department of Computer Science, Rochester Institute of Technology, USA, March, 2006.
- 32. "A signature based approach to composition", Talk at Colorado State University, USA in a Collaborative meeting with SINTEF, Norway, August, 2005.
- 33. "An aspect oriented approach to early software design", Talk at Colorado State University, USA in a Collaborative meeting with IRISA, France, June, 2005.

### **COURSES DEVELOPED/TAUGHT**

- International Institute of Information Technology (IIIT), Hyderabad, India.
  - Introduction to Software Systems
  - Software Systems Development
  - Design and Analysis of Structured Software
  - Software Engineering
  - Topics in Software Engineering
  - Software Quality Engineering
- Department of Software Engineering, Rochester Institute of Technology, NY.

- Software Architecture and Product lines
- Software Quality Engineering (online Synchronous)
- Software Modeling
- Software Evolution and Re-engineering
- Method Specification and Design
- Engineering of Software Subsystems
- Software Engineering
- Department of Computer Science, Colorado State University, Fort Collins, CO.
  - Parallel Programming
  - Object-oriented Design (Online Asynchronous)
  - Software Development Methods
  - Data Structures in Java
  - Discrete Structures
  - Introduction to Java

# **Sponsored Projects (select list):**

| • | Smart contracts for Open source License Management, RIPPLE                        | Aug '20 – Aug '21   |
|---|---|---------------------|
| • | Development of Security Search Engine, DST, Government of India                   | Aug '19 - Aug '22   |
| • | Design Innovation Center, MHRD, Government of India                               | July '16 onwards    |
| • | Outreach, Integration and Maintenance of Virtual Labs – Phase II,                 |                     |
|   | MHRD, Government of India   | Sept '14 – July '18 |
| • | Single-sign on solution for Mobile applications, CA Technologies Inc., Hyderabad. | Sept '12 – July '13 |
| • | Big data analytics on the cloud, CA Technologies Inc., Hyderabad                  | Sept '12 – July '13 |
|   | Web with Community Sourcing of Local Content, DIT, Govt. of India.                | Jan '12 – Dec ' 13  |
| • | Highly Accurate Mobile Device Positioning based on Wi-Fi signals                  | Nov '10 – May '11   |
|   | Zos Communications, NY.   |                     |
| • | Project: RIT Mobile applications  | Nov '09 – May '10   |
|   | RIT co-op and career services, NY   |                     |
| • | Project: Acquire Engine   | Nov '08 -May '09    |
|   | Nokia Corp, MA.   |                     |
| • | Project: Relay Equivalent Circuit Conversion                                      | Nov '07 -May '08    |
|   | Sponsor: Alstom Signaling Inc. Transit Systems, NY.                               |                     |
| • | Project: The Exchange   | Nov '06 – May '07   |
|   | The Center for Advancing the Study of Cyber infrastructure (CASCI), NY            |                     |
| • | Project: KnowledgeTrac <sup>TM</sup> Spider                                       | Nov '05 – May '06   |
|   | Telecom Consulting Group N.E. Corp., NY.  |                     |

# **SERVICE ACTIVITIES (select):**

**Executive Committee:** iSoft

General Chair: ISEC 2018, SERI 2020

**Steering Committee Chair: ISEC 2020-2023** 

**Steering Committee:** SERI - 2019 onwards; ISEC - 2015 onwards, Mobile Software Engineering (MSE) 2015; Modeling Symposium (ModSym) 2015-2017.

**Associate Editor:** IEEE Transactions on Software Engineering, CSI Transactions on ICT (Software design and performance), ECIS.

Web co-chair: 36th IEEE/ACM Intl. Conf. on Software Engineering (ICSE), 2014

**PC Chair:** 22<sup>nd</sup> Asia Pacific Software Engineering Conf. (APSEC), 2015; 7<sup>th</sup> Computer Society of India (CSI) Conf. on Software Engineering (CONSEG), 2013.

**Workshop Organizing Committee:** Technology-Driven Software Engineering Curriculum Development, CSEE&T 2014; Software Engineering Education workshop (SEEW), APSEC 2014, ModSym 2015, 2016, 2017, Design Thinking workshop 2016.

**Workshop/Symposium chair:** 8<sup>th</sup> India Software Engineering Conf. (ISEC) 2015; Post-graduate symposium, India Software Engineering Conf., February 2013; ICSE 2014 pre-Conf. workshop on Software Engineering In Practice (SEIP), Hyderabad, April 2013; ICSE 2014 pre-Conf. workshop on Software Engineering Research, Hyderabad, June 2013.

**Session chair:** SERI 2019,2020; 4<sup>th</sup> IEEE IACC 2014; ISEC (every year); IEEE Conf. on Technology for Education 2012; Software Engineering Research and Practice 2008, 3<sup>rd</sup> National Usability workshop (TechEase), October 2012.

**Program Committee:** ICSE Student Research Competition 2020, Asia Pacific Software Engineering Conf. (APSEC) 2015, 2016; ACM Symposium on Applied Computing (SAC) 2015; Mobile Software Engineering Track (MSE 2015); New Ideas and Emerging Results track for ICSE 2014-2015; 2018-2021 India Software Engineering Conf. (ISEC) 2010-2021; American Society of Engineering Education (ASEE) 2009-2014; IWRE 2009-2014; MBSWE 2009-2014; Aspect Oriented Modeling (AOM) 2005, 2006, 2007 held in conjunction with UML/MODELS Conf.; Critical Systems Development Using Modeling Languages (CSDUML 2005); Adaptive and Evolvable Software Systems: Techniques, Tools and Applications -HICSS mini-track, 2005

**Reviewer:** Transactions on Software Engineering, CSI Transactions on ICT, Journal of System and Software (JSS), Empirical Software Engineering; Journal on Software and Systems Modeling (SoSyM); Journal of Research and Practice in Information Technology (JRPIT); Journal of Scientific and Practical Computing (JSPC); Transactions on Aspect Oriented Software Development; Software Quality Journal; UML/MODELS Conf., books written and published through McGraw-Hill, Addison Wesley, Elsevier.

Memberships: ACM, IEEE, SIGSE, iSOFT, CSI, Upsilon Pi Epsilon

**REFERENCES**: Available upon request