Emilia Mendes

Professor Emilia Mendes
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BRIEF BIOGRAPHY:

I am Professor in Computer Science at the Blekinge Institute of Technology (Sweden), and a Finnish Distinguished Professor in Software Engineering at the University of Oulu (Finland).

The core of the research I am involved in is applied, and falls within Computer Science & Empirical Software/Web Engineering. More specifically, I have focused upon: i) the use of statistical and machine-learning techniques to several areas such as Software/Web cost estimation, value-based decision making, software maintenance; ii) measurement and metrics (e.g. Web metrics, productivity, quality, usability); iii) evidence-based research (which includes Systematic literature reviews and Mapping Studies); iv) software process improvement; and v) personality and its relation to learning and also to productivity. More recently I am also involved in the investigation of machine learning in the healthcare domain via PhD supervision.

The abovementioned research has led to more than 200 refereed publications, including three books (one edited (2005 – Web Engineering), and two written as sole author (2007 – Cost Estimation Techniques for Web Projects; 2014 – Practitioner's Knowledge Representation: A Pathway to Improve Effort Estimation)), and 10 best paper awards at International Conferences. I have also given 11 keynotes at several events.

Further, with regard to what I consider to be measures of one's research impact and academic reputation, my achievements have been to date the following:

- Citations and h-index measures, I have received to date 5307 citations[1][2], with an h-index = 40. Google scholar ranks me as #25 amongst Empirical Software Engineering Scholars.
- Research Grants: I have been awarded, as either Research Leader, or Collaborator, over 5M EUR.
- Received seven best paper awards at international conferences, two of which at ESEM.
- Program Committee (PC) Co-Chair for the two most prestigious conferences in Empirical Software Engineering (EASE 2012, and ESEM 2012); Euromicro/SEAA PC Co-Chair 2015. EASE 2017 General Chair.
- Editorial board membership of some of the leading journals in the fields of Software Engineering, and Web Engineering (IEEE Transactions on Software Engineering, the Software Quality Journal, the Journal of Web Engineering). Former editorial board member of the Empirical Software Engineering Journal (2007 to 2011).
- PC membership of 200+ events, representing editions of 45+ International & regional conferences, 25+ international & regional workshops, and others (e.g. summer schools).

In relation to teaching, I have taught a wide range of Computer Science and Software Engineering topics at undergraduate and postgraduate levels, with an excellent teaching record; supervised 16 MSc. and 4 PhD students to completion; co-supervised three DSc. theses (all completed); supervising/co-supervising 6 PhD students.

With regard to University, School/Faculty, and Department administrative and service duties, I had a leading role in numerous service activities throughout my 18 years as a full time academic.

Finally, I have consulting experience in the areas of Web resource estimation (e.g. effort, risk), databases, Web usability, and object-oriented development, as well as running industry workshops in Web cost estimation and productivity benchmarking, and several tutorials and short courses on Web cost estimation, and software metrics & measurement.

[1] Including self-citations; H-index = 40; statistics based on publish or perish software on Google scholar data run on the 18th October 2017.
[2] http://scholar.google.com/citations?user=Mz4IbXgAAAAJ&hl=en

Contents

Education and Employment

Education / Academic Record

1984-1986 Bachelor of Science in Computer Science (Catholic University of Rio de Janeiro, Brazil)
1990-1992 Master of Science in Computer Science (Federal University of Rio de Janeiro, Brazil)
1995-1999 Doctor of Philosophy in Computer Science (University of Southampton, UK)

Employment History

Jan. 15 - current	M3S, University of Oulu, Finland	Distinguished Full Professor
Sep. 12 - current	School of Computing, Blekinge Institute of Technology, Sweden	Full Professor
Aug. 11-Jul. 12	College of IT, Zayed University, Dubai, UAE	Associate Professor
Feb. 08 – Jun. 11	Computer Science Department, The University of Auckland, NZ.	Associate Professor
Feb. 02-Jan. 08	Computer Science Department, The University of Auckland, NZ.	Senior Lecturer (became tenured)
May 99-Dec. 01	Computer Science Department, The University of Auckland, NZ.	Lecturer
Oct. 97-Jan. 99	Electronics and Computer Science Department, The University of Southampton, UK.	Part-time Tutor
Mar. 87-Jul. 95	Department of Computer Science, Catholic University of Rio de Janeiro (PUC), Rio de Janeiro (RJ), Brazil	Part-time Tutor
Feb. 90-Aug.95	National Service of Business Apprenticeship (SENAC), RJ, Brazil	R&D Manager at the SENAC Headquarters
Dec. 86-Dec.88	ELEBRA Computers, RJ, Brazil	Business Analyst & Instructor
Jan. 86-Nov.86	ENGEVIX, RJ, Brazil	Software Programmer

Awards

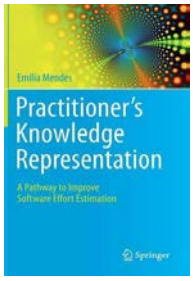
2016 Keynote speaker at the 15th Ibero-American Conference on Artificial Intelligence.
2016 Best short paper award at the International Symposium on Empirical Software Engineering and Measurement (ESEM 2016).
2016 Keynote speaker at the XIX Ibero-American Conference on Software Engineering.
2016 Invited for the editorial board of IEEE Transactions on Software Engineering.
2015 Best paper award at the International Symposium on Empirical Software Engineering and Measurement (ESEM 2015).
2015 Keynote speaker at the XIV Brazilian Symposium on Software Quality.
2015 Keynote speaker at the 9th International Conference on Software, Knowledge, Information Management & Applications.
2014 Finnish Distinguished Professor grant, funded by the Finnish Funding Agency for Innovation (Tekes), to collaborate with the University of Oulu on Value-based decision making.
2014 Keynote speaker at the Need for Speed (N4S) Industry event in Helsinki (Finland). This initiative is funded by the Finnish Funding Agency for Innovation (Tekes).
2014 Best paper award at the Software Quality Days International Conference.
2014 Keynote speaker at the 9th International Conference on Software Engineering and Applications Conference (ICSOFT-EA).
2013 Visiting Professor at the International Islamic University Malaysia (August 2013).
2013 Best paper award at the 8th International Conference on Software Engineering and Applications Conference (ICSOFT-EA).
2013 Keynote speaker at the 3rd International Conference on Web Engineering and Applications (ICWA 2013).
2012 Best paper award at the 19th Asia-Pacific Software Engineering Conference.
2012 Keynote speaker at the Annual Workshops of the Brazilian Software Process Improvement Model – MPS.BR.
2012 Keynote speaker at the 4th International Conference on Human-Centred Software Engineering (HCSE2012).
2012 Keynote speaker at the 15th IEEE International Multitopic Conference (INMIC 2012).
2010/2011 Visiting Scholar Fellowship from the Brazilian government to work at the Federal University of Rio de Janeiro (Brazil).

2010 Best paper award at the Predictive Models in Software Engineering (PROMISE) Conference.
2010 Best paper award at the Advances in Software Engineering (ASEA) Conference.
2010 Invited lecturer at the Brazilian Conference on Software: Theory and Practice (CBSoft) conference to deliver a short course software metrics and measurement.
2010 Invited lecturer at the Experimental Software Engineering Latin American Workshop (ESELAW) to deliver short course on software metrics and measurement.
2009 Keynote speaker at the 24th ACM/IEEE Automated Software Engineering Doctoral Symposium.
2009 Visiting Research Fellowship at the Federal University of Rio de Janeiro.
2009 Keynote Speaker at the First Recife Summer School on Software Engineering, Recife (Brazil).
2008 Invited to be a member of the editorial board of the Software Quality Journal.
2008 Invited to be a member of the editorial board of the Advances in Software Engineering Journal.
2007 Invited Speaker at the Fourth International Summer School on Software Engineering, University of Salerno (Italy).
2007 Invited to be a member of the editorial board of the Empirical Software Engineering Journal.
2007 Invited to be a member of the editorial board of the International Journal of Software Engineering and Its Applications.
2007 Visiting Research Fellowship from the Spanish government awarded to prestigious Overseas Academics.
2006 Keynote Speaker at the First International Conference on Web engineering and Applications.
2006 Visiting Research Fellowship from the Spanish government awarded to prestigious Overseas Academics.
2006 Best paper award at the 5th ACM/IEEE International Symposium on Empirical Software Engineering.
2006 Invited to be a member of the editorial board of the Journal of Software Measurement.
2005 Invitation to be a New Zealand Representative to ISO on Systems and software.
2005 Invited to be a member of the editorial board of the Journal of Web Engineering.
2004 One of the best papers at the International conference on Computer Science, Software Engineering, Information Technology, e-Business, and Applications, selected for a special journal issue.
2002 One of the best papers at the IEEE Software Metrics Symposium, selected for a special journal issue.
2002 One of the best papers at the IEE Empirical Assessment and Evaluation in Software Engineering conference, selected for a special journal issue.
2002 Invited to be a member of the editorial board of the International Journal of Web Engineering and Technology.
2001 The University of Auckland Early Career Research Excellence Awards.
1998 One of the best papers at the IEE Empirical Assessment and Evaluation in Software Engineering conference, selected for a special journal issue.

Research, Scholarship and Advancement of Knowledge

Highlights (not previously mentioned)

- First worldwide to:
  - Publish in the area of Software Value estimation (2015) and Web effort estimation (2000).
  - Create a database of Web project data from companies across the globe – Tukutuku project (2002). Still the only available database.
  - Investigate the building of models for Web effort estimation that are based on expert judgment and that represent the uncertainty inherent to such process (2007). This work was initially funded by the Royal Society of NZ (Marsden grant), where I was the first female in CS within NZ to be awarded this grant as a solo Principal Investigator.
  - Edit a book on Web engineering solely on Web measurement and metrics.
  - Solo author of a book on formal cost estimation techniques for Web projects.
  - Solo author of a book to help companies improve their effort estimates by applying a knowledge representation and management technique.



Awarded Research Grants

In terms of research grants, I have been awarded, as either Research Leader, or Collaborator, a total of 5.129.023 EUR. Tables 1 and 2 detail all the Research Grants led by myself (Research Leader)

Table 1 - Government-funded Research Grants

Duration	EUR	Brief Description	Funding Body
2015-2017	1.167.232	Finnish Distinguished Professor Research Grant to improve ICT's value-based decision-making and also to investigate the use of Bayesian Networks for Value estimation in product and project management and development (http://valueproject.fi/). This grant has the collaboration of four ICT Companies, and mixes foundational and applied research.	Finnish government's Funding Agency for Innovation Tekes
2010-2011	44.000	Visiting Fellowship Grant to apply Bayesian Networks to help the Brazilian ICT Industry improve resource estimation of software projects. Hosting Institution: Federal University of Rio de Janeiro (COPPE/Sistemas) (Principal Investigator and only researcher)	Brazilian government's Higher Education Personnel Improvement Coordination - CAPES
2007-2009	93.335	Marsden grant to build, in collaboration with six ICT companies in Auckland (New Zealand), probabilistic models for Web cost estimation (Principal Investigator and only researcher). This research had a mix of foundational and applied research.	New Zealand government's Royal Society of NZ (RSNZ)
2006	15.333	Visiting Fellowship grant, awarded to prestigious Overseas Academics, to investigate new metrics for an existing Web development methodology. Hosting Institution: Valencia Polytechnic University (Principal Investigator and only researcher)	Spanish government's Science and Technology Funding Body
2004-2005	2.700	Grant to investigate Data Enhancement and Adaptation for Software Cost Estimation (Principal Investigator and only researcher)	New Zealand government's Royal Society of NZ
Total	1.322.600		

Table 2 - University-funded Research Grants

Duration	EUR	Brief Description	Funding Body
2012	1.553	Fast-start Research grant for work on aggregating Bayesian Network models	Zayed University
2009-2010	6.700	Visitor Award for visiting scholar Professor M. Jorgensen	University of Auckland (UoA)
2000-2002	6.450	Grant to investigate an intelligent Tool for Measuring and Predicting Web Development Effort (only researcher)	UoA
2001-2003	20.000	Grant to propose a computer-aided Web Engineering Environment (only researcher)	UoA
2003-2005	1.600	Grant to apply Analogy-based Adaptation Techniques to software/Web Project Cost Estimation (only researcher)	UoA
2004	1.700	University Visitor Award for visiting scholar Professor B. Kitchenham	UoA
2004-2005	3.400	Grant to investigate Early Size Measures for Web Cost Estimation Based on the W2000 Methodology (only researcher)	UoA
2005-2007	4.350	Grant to investigate Web resource estimation (only researcher)	UoA
2006-2008	2.500	Grant to investigate Web quality measurement (only researcher)	UoA
2007-2009	3.350	Grant to compare different Web sizing measures for Web effort estimation (only researcher)	UoA
2007-2009	3.600	Faculty of Science Research Development Fund to investigate the effects of personality on team productivity and climate (PI)	UoA
Total	55.203		

Table 3 details the Research Grants awarded where I was/am Collaborator. Some of these were very large grants applied for by a group of researchers from different New Zealand Institutions.

Table 3 - Government-funded Research Grants

Duration	EUR	Brief Description	Funding Body
2016-2018	803.930	Research to estimate the individual and team capability of agile developers relating to software security knowledge, and also to estimate how such team capability can be used to predict software quality and cost.	Swedish Knowledge Foundation (KK-Stiftelsen)
2013-2014	13.900	Research grant in investigate the effect of personality traits in the productivity and climate of software development teams.	Malaysian Ministry of Higher Education
2007-2012	2.266.710	Research grant for Product and Process Improvement (SPI) through Software Visualisation. This Research grant comprised three Research Goals; I led the Goal aimed to investigate the use of Uncertainty for SPI. Several ICT companies in New Zealand collaborated in the project.	New Zealand government's Foundation for Research, Science and Technology (FoRST)
2002-2007	666.680	Research grant to investigate Domain-Specific Software Tools	FoRST
Total	3.751.220		

Keynotes

2016: XIX Ibero-American Conference on Software Engineering and 15th Ibero-American Conference on Artificial Intelligence.
2015: XIV Brazilian Symposium on Software Quality.
9th International Conference on Software, Knowledge, Information Management & Applications.
2014: Need for Speed (N4S) Industry event in Helsinki (Finland). This initiative is funded by the Finnish Funding Agency for Innovation (Tekes).
9th International Conference on Software Engineering and Applications Conference (ICSOFT-EA).
2013: 3rd International Conference on Web Engineering and Applications (ICWA 2013).
2012: Annual Workshop of the Brazilian Software Process Improvement Model – MPS.BR.
4th International Conference on Human-Centred Software Engineering (HCSE2012).
15th IEEE International Multitopic Conference (INMIC 2012).
2009: 24th International Conference on Automated Software Engineering Doctoral Symposium.
First Recife Summer School on Software Engineering.
2006: Spanish Network on Software Process and Product Quality (CALIPSO) Workshop.
1st International Conference on Web engineering and Applications.

Invited Talks/Tutorials[3]

2016: Tutorial on Software/Web effort prediction, to be given at the XIX Ibero-American Conference on Software Engineering.
Invited talk at a BTH event on Women's International day, to speak on the topic: 'Being a Female Academic in a Male Dominated Area'.
2015: Invited talk at the 45th CREST Open Workshop (on Predictive Modelling for Software Engineering) at the University College London
2013: Invited talk at the SIREN (Swedish Requirements Engineering research Network) meeting in Sweden to deliver a seminar on software requirements effort estimation;
Invited talk at both the University of Salerno (Italy) and at the Simula Research Laboratory (Norway) to present seminars on the use of Bayesian networks to improve Web effort estimation;
Invited talk at the International Islamic University Malaysia to present: i) two seminars on respectively the need for empirical software engineering and on how to successfully engage with industry on research collaborations; and ii) one tutorial to postgraduate students on research methodology.
Tutorial at the Federal University of Rio de Janeiro (Brazil) on evidence-based Software Engineering.
Invited talk on expert-based effort estimation at Salerno University (Italy).
2012: Invited talk at the Blekinge Institute of Technology (Sweden), The Open University (UK) and Vale do Rio Doce (Brazil), where I presented seminars on evidence-based software engineering and expert-based effort estimation;
Tutorial on Empirical Software Engineering at the IEEE INMIC'2012 Conference.
Invited talk on Systematic Literature Reviews at the EAST Workshop 2012.
2011: Invited talk on the Future of Web cost estimation presented at several Universities in Brazil: Federal University of Pernambuco (March 2011); Catholic University of Rio Grande do Sul (April 2011); Federal University of Brasilia (May 2011).
2010: Tutorials on Web & Software Metrics and Measurement at the Brazilian Conference on Software: Theory and Practice (CBSoft 2010), at the Empirical Software Engineering Latin American Workshop (ESELAW 2010), and at the Brazilian Petroleum Company (2010).
Invited talk on software effort estimation at an industry workshop, organised by the Federal University of Rio de Janeiro (2010).
2009: Tutorial on Empirical Software Engineering presented at the 2009 Automated Software Engineering Conference.
Tutorials on Web effort estimation and Bayesian Networks to Postgraduate students and Industry during a sponsored visit to the Federal University of Rio de Janeiro in July'09.
2008: Tutorial on Web cost estimation and Productivity benchmarking presented at the International Conferences on Web Engineering.
Invited talk on the Use of Bayesian Networks for Web cost estimation presented at the Universities of Salerno (Italy) and Napoli (Italy), both in 2008.

[3] Note that only the invited talks/tutorials where all expenses were paid for are detailed herein.

2007: Invited talk at the Fourth International Summer School on Software Engineering, at the University of Salerno (Italy), where I presented a tutorial on Web cost estimation.
2006: Tutorial on Web cost estimation and Productivity benchmarking presented at the International Conferences on Web Engineering.
Invited talk on Web cost estimation presented at the University of Rey Juan Carlos (Spain).
Invited talk on Web metrics and cost estimation presented at the Valencia University of Technology (Spain).
Invited talk on Cross- versus Single-company Web effort estimation presented at the Polytechnic University of Valencia (Spain).
Invited talk on Systematic Literature Reviews at the MeLLow (meta-level learning for software projects) workshop at Brunel University (UK).
2005: Tutorial on Web cost estimation and Productivity benchmarking presented at the International Conferences on Web Engineering.
Invited talk on Systematic Literature Reviews at Bournemouth University (UK).
Invited talk on Web Productivity Measurement presented at the New Zealand Software Metrics Association (New Zealand).
2002: Invited talk on Web metrics and cost estimation at Bournemouth University (UK).
2001: Invited talk on Web metrics and cost estimation at Auckland University of Technology (New Zealand).

Panels

2015: panellist at a BTH panel, on International Day 2015, on the topic: 'Being a Female Academic in a Male Dominated Area in Different Cultures'.
2012: panellist on the topic 'bridging the gap between industry and academia', held during the INMIC'12 Conference.
2012: panellist on the topic of cross-company learning and transfer to industry, held during PROMISE'2012.
2011: panellist on the topic the future of Empirical Web and Software Engineering, help during the 2011 Empirical Software Engineering Latin American Workshop.
2005: panellist on the topic of Research Methods in Web Engineering, held during the International Conference on Web Engineering 2005

Journal Editorial Board Membership

1. IEEE Transaction on Software Engineering: 2016 – current.
2. Software Quality Journal: 2009 - current.
3. Journal of Web engineering: 2005 - current.
4. The Journal of Software Measurement: 2006 - current.
5. The International Journal of Software Engineering and Its Applications: 2007 - current.
6. Empirical Software Engineering Journal: 2007 to 2011.
7. Advances in Software Engineering Journal: 2008 - 2012.
8. International Journal of Web Engineering and Technology: 2002 - 2010.

Program Committee Membership at Conferences and Workshops

The International Conferences and the years when I was a member of their Program Committee are as follows:

1. ACM/IEEE International Conference on Software Engineering (ICSE): 2017; 2014
2. IEE Evaluation and Assessment in Software Engineering (EASE): 2017; 2016; 2015; 2014; 2013; 2012; 2011; 2010; 2009; 2008; 2007; 2006; 2005; 2004; 2003; 2002
3. ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM): 2017; 2016; 2015; 2014; 2013; 2012; 2011 (short papers); 2010 (full and short papers); 2012; 2009; 2008; 2007.
4. International Conference on Predictive Models in Software Engineering (PROMISE): 2017; 2016; 2015; 2014; 2011; 2010
5. EUROMICRO Conference on Software Engineering and Advanced Applications: 2017; 2016; 2015; 2012; 2011.
6. International Conference on Web Information Systems and Technologies (WEBIST): 2015; 2014; 2013; 2012; 2011; 2010;
7. Human-Centred Software Engineering (HCSE): 2014
8. World-Wide Web Conference (WWW); Web Engineering Track): 2012; 2011; 2009; 2008; 2007; 2006; 2004; 2003.

9. International Conference on Software Engineering and Knowledge Engineering (SEKE): 2012; 2011; 2010; 2009; 2008;
10. IEEE Advanced Software Engineering & Its Applications (ASEA): 2010; 2009; 2008.
11. ACM Hypertext Conference: 2007; 2005; 2004; 2003.
12. ACM/IEEE International Symposium on Empirical Software Engineering (ISESE): 2006; 2005;
13. IEEE Software Metrics Symposium (Metrics): 2005; 2004 (late breaking papers); 2003; 2002.
14. International Conference on Web Engineering (ICWE): 2015; 2014; 2009; 2008; 2007; 2006; 2005; 2004; 2003; 2002.
15. International Conference on the Quality of Information and Communications Technology (QUATIC): 2016; 2014.
16. International Conference on Software Engineering and Applications (ICSOFT/EA): 2015; 2014;
17. International Conference on Novel Approaches to Software Engineering (ENASE): 2014
18. Web Information Systems Engineering (WISE): 2009; 2008; 2006; 2005; 2004; 2003;
19. Agile Conference (Agile): 2009.
20. International Conference on Product-Focused Software Development and Process Improvement (PROFES): 2015; 2012.
21. International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES): 2012.
22. International Conference on Web Engineering & Applications (ICWA): 2013; 2007; 2006.
23. IADIS International Conference WWW/Internet: 2011; 2007; 2006; 2005; 2004; 2003.
24. International Conference on Software Process and Product Measurement (Mensura): 2007.
25. Human-Centred Software Engineering Conference: 2012.
26. International Conference on Software and Data Technologies: 2007.
27. International Conference on Web-Age Information Management: 2007;
28. International Conference on Enterprise Information Systems (ICEIS): 2007; 2005; 2004; 2003.
29. Information Resources Management Association International Conference (IRMA): 2007.
30. IASTED International Conference on Internet and Multimedia Systems and Applications: 2007; 2006.
31. IASTED International Conference on Software Engineering and Applications: 2007; 2006.
32. Annual International Conference of Computer Science and Software Engineering: 2007; 2006.
33. The International Symposium on Information Systems and Engineering (ISISE): 2001.
34. ICWE'07 Doctoral Symposium: 2007.
35. 16th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems: 2012.
36. International Conference on Communication Systems and Network Technology: 2012.

The Regional Conferences and the years when I was a member of their Program Committee are as follows:

1. Asia-Pacific Web Conference: 2007.
2. Australasian World-Wide Web conference (AusWeb): 2008; 2007; 2006; 2005; 2004; 2003; 2002.
3. Australasian Computer Science Week Conference (ACSW): 2001.
4. Latin American Web Congress (LA-Web): 2007; 2006; 2005; 2004; 2003.
5. Informatics Latin American Conference (CLEI): 2009;
6. Brazilian Symposium on Software Quality (SBQS): 2011; 2010; 2009.
7. Brazilian Symposium on Software Engineering (SBES): 2011; 2010; 2009; 2008 (full papers and also sub-committee to judge best conference papers); 2007; 2006; 2005.
8. Spanish Human-Computer Interaction Conference: 2002.

The International Workshops and the years when I was a member of their Program Committee are as follows:

1. Workshop on Software Quality (co-located with ICSE): 2009; 2008; 2007; 2006; 2005; 2004; 2002.
2. Workshop on Web engineering (co-located with the Hypertext conference): 2005; 2004.
3. International Workshop on Realising Evidence-based Software Engineering (REBSE) (co-located with ICSE): 2007; 2005.
4. International Workshop on Managing the Influence of People and Team Factors in Software Engineering (INTEAMSE) (co-located with the PROFES2012 Conference): 2012.
5. Joint workshops on Intelligent Methods for Software System Engineering: 2012.
6. Workshop on Artificial Intelligence techniques in Software Engineering (AISEW): 2009; 2008.
7. International Workshop on Web Usability and Accessibility (IWWUA): 2009; 2008; 2007.

8. Quality Assessment in Web Workshop (QAW): 2009
9. New Generation Web Quality (NGWeb): 2012
10. Human Aspects of Visualization Workshop, (co-located with INTERACT): 2009;
11. International Workshop on Evidential Assessment of Software technologies (EAST): 2012; 2011.
12. International Workshop on Realizing AI Synergies in Software Engineering: 2012 (co-located with ICSE).
13. Software and Usability Engineering Cross-pollination: Patterns, Usability and User Experience, (co-located with INTERACT): 2011;
14. International Workshop on Web Quality (co-located with the ICWE conference): 2004.
15. Workshop on Web and Portals Quality: 2008.
16. International Workshop on the Interplay between Usability Evaluation and Software Development (I-USED): 2008.
17. The First International Workshop on Software Productivity Analysis and Cost Estimation: 2007.
18. First International Workshop on Aligning Web Systems and Organisation Requirements: 2007.
19. ICWE 1st Workshop on Web Quality, Verification and Validation: 2007.
20. Workshop on Model-Driven Web Engineering (co-located with ICWE): 2005.
21. 1st Workshop on Evidential Assessment of Software Technologies (EAST 2011): 2011.

The Regional Workshops and the years when I was a member of their Program Committee are as follows:
1. Experimental Software Engineering Latin American Workshop (ESELAW): 2016; 2010; 2009; 2008; 2006; 2005
2. Ibero-American Workshop on Requirements Engineering and Software Environments (IDEAS): 2008; 2007;
3. Brazilian Workshop of the MPS.BR (WAMPS): 2012.

Other Program Committee Memberships
1. 1st International Educators' Day on Web Engineering Curricula (WECU): 2010.
2. International Summer School on Software Engineering (ISSSE): 2016; 2015; 2014; 2013; 2012; 2011; 2010; 2009; 2008; 2007.
3. ICSE ACM Student Research Competition: 2012.
4. Fourth annual undergraduate research conference on applied computing: 2012.

Journal Papers Reviewed[4]
The journal are listed below, where in brackets I include the number of papers reviewed, and the year in which they were reviewed:
- IEEE Transactions in Software Engineering (1:2002; 4:2007; 1:2008; 3:2009; 1:2010; 3:2011; 1:2012; 1:2013).
- Information and Software Technology (1:2003; 1:2004; 2:2005; 1:2006; 1:2007; 1:2008; 1:2009; 2:2010; 1:2011; 1:2012; 5: 2013; 2:2014; 1:2015; 2:2016).
- Empirical Software Engineering (1:2002; 2:2007; 1:2008, 1:2009, 2:2010; 1:2011; 2:2012; 2:2015).
- Software Quality Journal (1:2007; 1:2009; 1:2012; 1:2014; 2:2015; 1: 2016).
- IEEE Software (1:2007; 1:2010; 1:2011; 2:2012).
- ACM Transactions on Software Engineering and Methodology (1:2006; 1:2007).
- Journal of Systems and Software (2:2003; 2:2004; 2:2005; 2:2006; 1:2007; 2:2008; 1:2014; 1:2017).
- Journal of Web engineering (1:2005; 1:2006, 1:2008).
- Journal of Applied Soft Computing (1:2015).
- Journal of Software Engineering Research and Development (1:2015).
- Computers and Education (1:2003).
- International Journal on Web Engineering and technology (3:2002; 2:2003; 2:2005; 2:2007; 2:2008).
- IET Software (3:2008; 1:2009).
- Journal of Software Maintenance and Evolution (1:2008; 1:2012; 1:2013).
- Journal of Software Evolution and Practice (1:2012).
- Journal of Software Maintenance and Evolution (1; 2008; 2:2013)
- World-Wide Web Journal (1 paper in 2008).

[4] Note that these numbers do not reflect all the invitations I received, as due to other commitments I sometimes have declined invitations to review papers even for journals such as TSE, EMSE, JSS and IST.

Journal Special Issues

2017: Co-guest editor for the Journal of Systems and Software (with Professor Kai Petersen, Dr. Nauman Ali and Dr. Teresa Baldassare) on a special issue on Evaluation and Assessment in Software Engineering.

2015: Co-guest editor for the Software Quality Journal (with Dr. Dietmar Winkler), on a Special Issue on Quality in Software Intensive Systems. This special issue is to be published in 2016, and include some of the best papers from Euromicro/SEA 2015.

2013: Co-guest editor for the Information and Software Technology Journal (with Professor M. Genero), focusing on the best papers from the 2012 Evaluation and Assessment in Software Engineering Conference.

2007: Editor for the International Journal of Web Engineering and Technology on a Special issue on Empirical studies in Web engineering.

Book Reviews

2013: Invited by Chapman & Hall/CRC Press to review a book on evidence-based software engineering by Kitchenham, Budgen and Brereton.

2006: Invited by McGraw-Hill Higher Education, as an expert in Web Engineering, to review a book on Web Engineering by Pressman and Lowe.

External Referee of Academic Promotion Applications

2014: External Referee for Örebro University (Sweden), for 16 candidates who applied for a Senior Lectureship position in Computer Engineering with a specialization towards Software Engineering.

2008: External Referee for the Sultan Caboos University (Oman), of an application for promotion to Associate Professor from an applicant who worked at that University.

External Reviewer of Computer Science Research Applications

2012: Invited by the Research Council for Natural Sciences and Engineering at the Academy of Finland to be a member of a review panel for research proposals in the field of Computer Science.

Publications

See Appendix A

Teaching and Educational Development

Highlights

- While at the University of Auckland (UoA): taught six courses in Computer Science encompassing fifteen different subjects, two at Postgraduate (PG) level (subjects underlined in the next bullet point), and four at Undergraduate (UG) level (subjects in italics in the next bullet point); developed new course material including a UG book of course-material. Made significant enhancements to all the courses taught. I was course supervisor for two PG courses, and one UG course; I also have been involved in curriculum development at the department level. At Zayed University I taught four courses in Information technology in four different subjects, one at PG level (subject underlined and in bold in the next bullet point), and three at UG level (subjects in italics and bold in the next bullet point). At the Blekinge Institute of Technology I have taught a PG-level course in Software Engineering, and was course supervisor for another PG course in Software Engineering (subjects underlined, in bold and italics in the next bullet point). I have also given several invited classes at the Research Methodology Course and one at the Requirements Engineering Course at BTH.
- Diversity of Subjects taught: ***Introduction to programming and problem solving; Web development; Management of Information Systems***; *Data Structures*; *Advanced Object-oriented concepts; Introduction to Databases and Client-based programming using Java; Advanced Databases; Database Modelling; SQL; Software Engineering Principles and Techniques*; *Object-oriented programming; Human-Computer Interaction; Introduction to Computer Science; Software Engineering projects, and Operating systems; Web/Software engineering measurement and metrics*; Hypermedia design; Software measurement principles and application; **Research Methodology**; ***Software Quality***.
- Prior to being a full-time academic I taught Computer Science UG courses at the University of Southampton (1997 to 1999) and the Catholic University of Rio de Janeiro (1987 to 1995); I have also taught a postgraduate course on software metrics and measurement at the Federal University of Rio de Janeiro (second semester 2010), and gave numerous invited lectures at the University of Oulu, Federal University of Rio de Janeiro and Blekinge Institute of Technology.
- My teaching evaluations at the UoA[5], at Zayed University, and at Blekinge Institute of Technology indicate, on average, excellence in teaching; I also added numerous innovations to my teaching practice.
- I have published eighteen refereed conference papers and two journal papers in the area of Computer Science & Software Engineering Education.
- Co-edited a text book on Web measurement and metrics (published by Springer in 2005), to be used in one of the Postgraduate courses I lectured in Auckland; this textbook was also used by Mr. Bebo White[6] on a Postgraduate course he taught at Hong Kong University.
- Supervised 16 MSc students (mostly with A-range grades); currently supervising 1 MSc student; main supervisor of seven PhD students (three completed and five ongoing); co-supervisor of two PhD students (one completed; one ongoing); co-supervisor of three DSc. students (all completed); Supervised 15 UG Projects and 19 PG Projects, and three BTech/Software Engineering Projects.
- Examination: External examiner of twelve DSc/PhD theses, four MSc theses; Internal examiner of nine MSc theses at the University of Auckland, and one at Blekinge Institute of Technology.
- The only NZ academic who participated in the ACM/IEEE SEEK[7] project as a volunteer (2001-2002).

Teaching Contributions at the Blekinge Institute of Technology (BTH)

The Faculty of Computing offers both undergraduate (UG) and postgraduate (PG) courses. Each course comprises 24 hours of lectures, generally with a teaching load of three 1-hour classes per week.

Assessment in all courses is done using assignments and a final exam, where assignments and occasionally final exams too, may be graded by PhD students. I am only lecturing PG courses at BTH since these are taught in English.

To date I lectured the following course at BTH:

Postgraduate	Web/Software Measurement and Metrics

Since I joined BTH, I have lectured this course over the past three years (2013 to 2015), which varying class sizes from 30 to up to 80 students. In 2012 I also offered this course as a self-study course for one of our PhD

[5] University of Auckland's Centre for Professional Development (CPD) guidelines

[6] http://www.bebowhite.com/

[7] Software Engineering Education Knowledge, aimed to determine the knowledge to be included in any UG SW. Engineering program.

students. In relation to the latter I held weekly meetings with the PhD student, and the assessment included the same number of graded components as a normal course.
I have also been the course supervisor, for two years, for another PG course on Software Quality, which included overseeing its delivery, and checking the quality of all the different types of assessment used (e.g. assignments, exam).
Other tasks include: grading assignments for a PG course (Research Methodology), assessing several Masters theses proposals; on-going supervision of Masters students (at BTH Masters students used to work in pairs; however recently they work individually); assessment of other Masters theses; attendance at meetings relating to changes to courses' descriptions and types of assessment; and presentation of seminars to prospective Masters students proposing possible research topics.

Teaching Contributions at Zayed University
The College of IT offers both undergraduate (UG) and postgraduate (PG) courses. Each course comprises 48 hours of lectures, generally with a teaching load of three 1-hour classes per week.
Assessment in all courses is done using assignments and a final exam. Some UG courses also include a mid-term test. All the assessment grading is done by the course's lecturer.
I lectured the following courses at Zayed University:

Undergraduate	Introduction to Programming and problem solving (2nd year)
	Web Development (2nd year)
	Management of Information Systems (3rd year)
	Software Design and Construction (4th year)
Postgraduate	Research Methods

Teaching Contributions at the University of Auckland
The Computer Science Department offers both undergraduate (UG) and postgraduate (PG) courses. Each course comprises 36 hours of lectures, generally with a teaching load of three 1-hour classes per week; teaching is also generally shared amongst two or more lecturers/tutors; in addition, some UG courses also offer weekly tutorials, taught by at least one tutor or lecturer.
Assessment in all courses is done using assignments and a final exam. Some UG courses also include a mid-term test where mid-term tests and final exams are expected to be graded by that course's lecturers. In relation to the Stage I (first-year) and Stage II (second-year) UG courses, there are also markers available to grade all assignments. All courses involve lecturing, the preparation of course notes, assignments, exams, and in some cases mid-term tests and tutorials as well.
In general, UG courses require students to work on three different assignments; as for PG courses, the number of assignments tends to vary from one to many, depending on the type of PG course being offered (e.g. more practical versus more theory-based). Every course has a supervisor, who is responsible for managing all aspects relating to the running of that course (e.g. managing the marking team, uploading on-line hand-outs and course information, meetings with the teaching staff (lecturers, tutors, markers), meetings with the course's class representative, attendance at the monthly student-staff meeting, handling of final grades and the handling of the discussions during the moderation of course grades)).
Teaching uses a variety of methods for delivery and assessment, and is informed by research.
Since joining the Computer Science Department in 1999, I taught both UG and PG courses, and throughout the years have also been actively involved in curriculum development for all the courses taught. From 1999 to 2010 I taught and co-taught two PG courses, and co-taught six UG courses; the UG courses comprised several CS topics such as OO programming, Operating Systems, Database Management Systems, Data Modelling, Hypermedia, Introduction to Computing, and Software Development. The PG courses comprised topics such as Multimedia & Hypermedia Development, Software & Web measurement and metrics, Empirical Web and Software Engineering.
I have also been the course supervisor for the following courses: a Stage II UG course from 2001 to 2009; one PG course from 2003 to 2009; another PG course from 2005 to 2006.
In terms of my teaching evaluations, students found my teaching of excellent quality. I have also incorporated numerous innovations into my lecturing, some of which were published as refereed full papers at International Conferences in Computer Science Education (see Appendix A). I have also included some testimonials from former PG students in Appendix B.

I have coordinated (shown *) and taught the following courses from 1999 to June 2010:

Undergraduate	Introduction to Computer Science Principles of Computer Science Software Design and Construction (*) Database systems (*) Database Modelling (*) Informatics (*) Operating Systems Human-Computer Interaction
Postgraduate	Hypermedia and Multimedia Systems (*) Software Metrics and Measurement (*)
Industry courses	Object-Oriented Analysis and Design Database Systems & Modelling Web cost estimation and productivity benchmarking Software measurement and metrics

Teaching Contributions prior to being a full-time Academic

I have also lectured several UG CS courses at the Catholic University of Rio de Janeiro, from 1987 to 1995, on topics such as Data Modelling, Database Management Systems, and Software Development and Design. At the University of Southampton I also lectured a Database Management Systems course from 1997 to 1999. Finally, in 2010 I lectured a PG course on Web & Software Measurement and Metrics at the Federal University of Rio de Janeiro. I prepared new course material for all the UG courses, and supervised all the courses taught.

Student Supervision

This sub-section presents a summary of the students I have supervised since 1999 (see Tables 4 to 10). They include Undergraduate (UG) and Postgraduate (PG) Projects, MSc theses, PhD & DSc theses in Computer Science (CS); Final Year projects in Bachelor of Technology (BTech), and Final Year Research projects in Software Engineering (SwEng).

Both UG and PG Projects consist of supervised independent research or development work on a topic that must be related to Computer Science. The outcome is a written report, which is used for assessment purposes. These projects last for a semester, and differ in the depth of the discussion about previous work and the research contribution provided.

MSc Thesis: Entails a research only work lasting two semesters. The outcome is a written account of research work beyond a literature review, which is used for assessment purposes.

PhD Thesis: Entails a research only work lasting for six semesters. The outcome is a written thesis, which is used for assessment purposes. In addition, PhD students also undergo a private oral examination.

DSc Thesis: Entails a research only work lasting for 2 years. The outcome is a written thesis, which is used for assessment purposes. In addition, DSc students also undergo a public oral examination.

Both final year Project in Bachelor of Technology and the final year Project in Software Engineering entail a one-year project supported by either the local IT industry or an active research area within the University of Auckland.

Table 4 - UG Project students (all as the only supervisor)

Year Awarded	Student's Name	Project's Title
2005	David McIntyre	Topology Oracle and Dictionary
2005	Jian Sun	MetriQ Mobile
2005	Heisky Ji	Swing Tutorial
2005	Lei Wang	Sizing measurement using function points and UML
2005	Sunny Zheng	Case based reasoning adaptation
2004	Michael Bao	Revamping the Tukutuku website
2004	Guofeng Chen	Tukutuku Web productivity Measurement
2004	G. Mahawatte	Size measurement on COSMIC FFP
2003	Gayani Mahawatte	Early Web size measures
2003	Jie Lin	Web-based time management
2003	Deepali Thussu	Web usability report
2003	Helen Huang	Survey on Web Projects cost estimation
2002	Santokh Singh	Extending the OOHDM Designer
2001	Weiguo Jin	A Web engineering case tool
2000	Yonghong Zhang	Telecommunications Products Ordering System on the Web

Table 5 - PG Project students Supervised, always as the only supervisor

Year Awarded	Student's Name	Project's Title
2004	Y.D. Kapoor	Web usability measurement
2004	Michael Bao	Case-based reasoning for Tukutuku
2003	Yu Zhu	Web measurement: Establishing baselines by Business sector
2003	Reuven Haisraeli	RAS – Rapid Assistant Solution
2003	Rui Yang	Culturally-driven websites: an experiment
2003	Anupam Dewan	Web quality survey
2003	Kewin Stoeckigt	Web usability
2002	Santokh Singh	Implementing a Web Metrics Tool
2001	Baide Wang	A CAWE Tool based on the OOHM model
2001	Craig Stanton	A Web site development tool for kids
2001	JianHua Hao	Tool Support to using the Cognitive Flexibility Theory
2001	Rasha Murad	A survey and comparison of existing Effort prediction Literature
2001	Wenzhong Liu	A Case-based reasoning tool
2000	Yang Xiayun	Web-based car rental system
2000	Tinghua Xu	A Web-based Real Estate Agency System
2000	Shengjiang Lu	Improving Golden Year's Web site
2000	Jian Dong	On line cruise travel company: BetterCruise
2000	Cheng Ge	Internet-based Undergraduate and Postgraduate Course Management system
1999	Fengjie Wu	Automatic Measurement of Web Application's Attributes

Table 6 - BTech/SwEng Project students supervised always as the only supervisor

Type of Project	Year Awarded	Student's Name	Project's Title
SwEng	2003	Nikhil Sharma and Aseem Agarwal	Tukutuku Benchmarking project
SwEng	2001	Vamshee Reddy and Vishal Kumar	OOHDM Case and Measurement Tool
BTech	2000	Noman Afridi	Internet Banking

Table 7 - MSc students supervised

Year Awarded	Student's Name	Thesis Title	Role
Blekinge Institute of Technology			
2015	Arijit Das, Shoaib Rahman	Mitigation of issues and challenges: usage of Scrum in Global Software Development Supervisor	Sole supervisor
University of Auckland			
2009	Jeremy Clive Read	Comparing Bayesian Network and Web-Cobra Techniques	Sole supervisor
2009	Chang Yew Kim	Comparing Cross Company and Single Company Effort Models Using Bayesian Networks	Sole supervisor
2008	Simon Baker	Towards the construction of large Bayesian networks for Web cost estimation	Sole supervisor
2007	Gopi Dinakaran	Web cost estimation using cross-company and single-company Datasets	Sole supervisor
2007	Jing Qian	Web cost estimation for small software companies	Sole supervisor
2006	Lubna Al-Fakhri	Pair Programming for CS teaching	Sole supervisor
2006	Mark Alford	Investigating the Effect of Link types on Scholarly performance	Sole supervisor
2005	Jianhua Hao	Usage-based Statistical Web testing	Sole supervisor
2004	Michael Chun Long Yip	Web usability measurement	Sole supervisor
2004	Paulmi Patel	Adaptable Web assessment	Sole supervisor
2003	Roneel Naidu	A New Approach to Software Process Improvement for Small Software Development Organisations	Sole supervisor
2001	Fariba Mehrdad	An In-depth Comparison of CBR and common Effort Prediction Models	Sole supervisor
2001	Ruobing Pan	An Agent-based Automatic Measurement Tool of Web size metrics	Sole supervisor
1999	Kai Hung Chow	A Case-based Cardiology Learning System on The Web	Co-supervisor

Table 8 – MSc students I am currently supervising (BTH)

Students' Names	Thesis' Title	Role
Sajjad Asif	Revisiting the Tukutuku benchmarking project	Sole supervisor

Table 9 – PhD students supervised & co-supervised, and DSc. students co-supervised

Student's Name	Year Awarded	Thesis' Title	Role
Damir Azhar	2016 (PhD)	Resource Prediction for Web Projects	Co-supervisor; main supervisor is Dr. Patricia Riddle (University of Auckland, New Zealand)
Muhammad Sulayman	2012 (PhD)	Software Process Improvement for Small & Medium Web Enterprises	Main supervisor; co-supervisor is Professor Cathy Urquhart (Manchester Metropolitan University, UK)
Mehwish Riaz	2012 (PhD)	Maintainability Prediction for Relational Database-driven Software Applications	Main supervisor; co-supervisor is Associate Professor Ewan Tempero (University of Auckland, New Zealand)
Norsaremah Salleh	2011 (PhD)	Investigating the Effect of Students' Personality Traits Towards Improving Pair Programming's Effectiveness as a Pedagogical Tool for CS/SE Education	Main supervisor; co-supervised with Professor J. Grundy (Swinburne University of Technology, Melbourne, Australia)
Tayana Conte	2009 (DSc)	Web Projects Perspective-based Usability Inspection Technique	Co-supervisor; main supervisor is Associate Professor Guilherme H. Travassos (Federal University of Rio de Janeiro, Brazil)
Marcos Kalinowski	2011 (DSc)	DPPI: A Defect Prevention-Based Software Process Improvement Approach	Co-supervisor; main supervisor is Associate Professor Guilherme H. Travassos (Federal University of Rio de Janeiro, Brazil)
Katia Romero	2012 (DSc)	A visual analysis approach to validate the selection review of primary studies in systematic reviews	Co-supervisor; main supervisor is Professor Jose Carlos Maldonado (University of Sao Paulo, Brazil)

Table 10 – PhD students I am currently supervising

Student's Name	Thesis' Title	Role
Blekinge Institute of Technology		
Ana Dallora	The application of Machine-learning to Dementia prognosis and MRI-based age identification	Main supervisor; co-supervisor is Professor Johan Berglund (who is also a physician).
Jefferson Molleri	Methodological guidelines to improve research quality in Software Engineering	Co-supervisor; main supervisor is Professor Kai Petersen.
Sai Datta	Agile Security Capability Measurement and prediction	De facto main supervisor (co-supervisor on paper);
University of Oulu		
Vitor Freitas	Improving value-based decision-making in Software Engineering	Main supervisor; co-supervisors are Dr. P. Rodriguez and Professor M. Oivo.
Markku Kemppa	An action-research framework to improve decisions on features selection in the healthcare domain	Main supervisor; co-supervisor is Dr. Pilar Rodriguez.
Fabiana Mendes	Personality traits in decision-making in value-based software engineering	Main supervisor; co-supervisors are Dr. N. Salleh and Professor M. Oivo.

External PhDs and DScs theses Assessed

2016 Norwegian University of Science and Technology: 1 PhD
2015 University Technology Sydney (Australia): 1 PhD
2013 Salerno University (Italy): 3 PhDs; Lund University (Sweden): 1 PhD
2012 University of New South Wales (Australia): 1 PhD
2011 Federal University of Rio de Janeiro (Brazil): 3 DScs
University of Eastern Finland (Finland): 1 PhD
Aalto University (Finland): 1 PhD
2010 Federal University of Rio de Janeiro (Brazil): 1 DSc
2004 Otago University (New Zealand): 1 PhD
2003 Otago University (New Zealand): 1 PhD

Contributions to the University and Community

Highlights

- Contributed to the three disciplines related to my research with conference session chairing, committee membership in 200+ international conferences & workshops, refereeing in numerous areas, journal reviewing of 80+ papers and journal editorial board membership of six international journals.
- Program Committee Co-Chair (short papers) for the 2013 Empirical Software Engineering and Measurement Conference; Co-Chair (full papers) for both the 2012 Evaluation and Assessment in Software Engineering (EASE) Conference and the Empirical Software Engineering and Measurement Conference (ESEM), and for the Euromicro Conference 2015. General Chair EASE 2017.
- Workshop and tutorial organisation; Workshops Chair for the 2007 International Web Engineering Conference; co-edited the Workshops' Proceedings; Conference Program Committee Chair (short papers) for the 2006 ACM/IEEE International Symposium on Empirical Software Engineering conference; Posters and Demonstrations Chair for the 2005 International Web Engineering Conference; Local arrangements Co-chair for the International Symposium on Information Theory and its Applications (ISITA2008); Publicity and Organisation committee for the 2009 Australian Conference on Software Measurement; Doctoral Symposium Chair for the following Conferences: 2008 International Conference on Web Engineering; 6th International Conference on Predictive Models in Software Engineering (PROMISE'2010); Doctoral Symposium Co-chair for the 11th Conference on Product Focused Software Development and Process Improvement (PROFES'2011); Chair for the 1st and 2nd Workshops on Web Measurement and Metrics, co-located with the International Conferences on Web Engineering 2005 and 2006.
- Special issue Guest Editor in 2007 on Empirical studies in Web Engineering for the International Journal of Web Engineering and Technology. Co-guest editor in 2013, in collaboration with Professor M. Genero, of a special issue for the Information and Software Technology Journal with the best papers from EASE'12. Co-guest editor in 2015 for the Software Quality Journal (with Dr. Dietmar Winkler), on a Special Issue on Quality in Software Intensive Systems: Co-guest editor for the Journal of Systems and Software (with Professor Kai Petersen, Dr. Nauman Ali and Dr. Teresa Baldassare) on a special issue on Evaluation and Assessment in Software Engineering
- Director of the Web Engineering, Technology and Applications group: 2005 to 2011 (UoA).
- While at the UoA: member of two Faculty committees (Postgraduate Student Staff Consultative Committee and Faculty of Science Research Advisory Committee), and Department's Research committee; Membership at and Chairing of departmental Research sub-committees; other activities relating to management and leadership at both Faculty and Department levels.
- At Zayed University: member of two College committees (Research and Academic Promotions).
- Participation in 2001 in the UoA Women in Leadership Programme.
- Organised several industry workshops to foster collaboration with the local ICT industry (2007; 2004).
- Invited to present numerous tutorials and seminars at different conferences and workshops on various topics relating to my research.

Service at the College of Information Technology at Zayed University

I was a member of the Research Committee and the Promotions Committee at the College of IT at Zayed University.

Research Group Service at the Blekinge Institute of Technology

At the Research Group level, I took the initiative to undertake a leadership role in:

- Setting up an internal process to help improve the quality of the research grant applications within our research group. I also invited one of the senior advisors from BTH's research office to read our applications and attend our meeting so to also provide valuable feedback to applicants.
- Initiating discussions within our group first and later with the Head of our School to visit several Universities in Brazil in order to recruit full time PhD students to come to BTH, funded by the Brazilian government's Science without borders initiative. This led to a visit to Brazil in April 2013, which lead to a fruitful outcome.
- Proposing and validating research performance measures for the Group, as part of one of the main outcomes of a group retreat in 2013.

I also participate in the research group and the School of Computing meetings, and with several other tasks (e.g. recruiting committee for two PhD students employed by BTH, and also for recruiting postdoctoral students).

University Service at the University of Auckland

In 2001 I participated in the University of Auckland's Women in Leadership Programme, aimed at providing female staff with opportunities to develop their leadership skills to increase the representation of women in identifiable leadership positions within the University.

In 2005 I initiated a proposal for an umbrella collaboration between the University of Auckland and leading Brazilian Universities (e.g. São Carlos University, Federal University of Rio de Janeiro) for the exchange of undergraduate and postgraduate students. This project has also been recently discussed with the International Office. Although this collaboration has not as yet been formalised, two Brazilian Universities have already sent their PhD students for research visits to the University of Auckland (one in 2009, another in 2010).

Faculty Service at the University of Auckland

At the Faculty level I was a member of the Postgraduate Student Staff Consultative Committee (PGSSCC) from 2005 to 2009, and also a member of the Faculty of Science Research Advisory Committee (RAC) from 2008 to 2010. The PGSSCC is used as means to provide information to postgraduate students on matters relating to the Faculty of Science, and also to provide postgraduate students with a forum to raise their concerns. The RAC aims to provide: i) a network of contacts within Departments to support the activities of the Associate Dean – Research in promoting the research profile of the Faculty of Science (FoS) and in providing research leadership within the Faculty; ii) a direct route for research information to flow into Departments and to ensure research coordinators are well informed of research opportunities and requirements.

In 2006 I was one of the FoS' judges for the Incredible Science Website Poster competition, and in 2007 was one of the members of a panel that provided feedback to other academics applying for some of the research grants sponsored by the Royal Society of New Zealand (Marsden grants).

In the past I have also contributed to service by helping to organise the Computer Science component for the Girls into Science Open day and by presenting seminars for the Bump into Science Open Day. In addition, I have always participated in the Courses and Careers day working at the Computer Science information desk.

Department Service at the University of Auckland

At the Departmental level, I took the initiative to undertake a leadership role in:

- Re-structuring of the HMU (HyperMedia Unit) research group in 2004 by bringing cohesion to this research group, renamed to WETA (Web Engineering, Technology and Applications Group). The WETA members are myself and all the PhD and MSc students I supervise. Since the re-structuring of this group I have been able to establish a set of group activities, such as:
  - Monthly PhD/MSc seminars;
  - Weekly research group meetings;

I have been very proactive in my service contribution within the CS Department, as follows:

- While a member of the Enrolment team, from 2003 to 2005 (a group of academics offering advice to international students who already have an existing degree in a subject other than CS, and who are willing to obtain a Degree equivalent to an undergraduate degree majoring in CS), in addition to my duties that included discussing Diploma applications and making course recommendations for Diploma students, I also took a leadership role that included:
  - organisation of a customised training in the software nDeva for the enrolment team;
  - assessment for the FoS of Diploma applications eligible for graduation;
- took the initiative to propose the creation of a database of successful research grants for the department, which has been made available since 2004;
- In 2004 I mentored two lecturers (Computer Science and Statistics departments) to help them both succeed on being promoted to Senior Lecturer.
- In 2006 I volunteered to: i) chair one of the sub-committees responsible to develop further research-related strategic goals for the department, and to participate in a second sub-committee; ii) to replace Associate Professor Hans Guesgen managing the Computer Science Research Award and the Computer Science Early Research Award.

- In 2006 I also attended the Academic Committee meetings, despite not being a member of the committee, looking for an opportunity to help the department further in regards to its Academic-related decisions.
- I was course supervisor for a PG course from 2005 to 2006, and course supervisor for another PG course from 2003 to 2009; course supervisor for a UG course from 2001 to 2009.
- I was a member of the CS Research Committee (RC), from 2005 to 2006, and later from 2007 to 2010. The RC discusses and makes recommendations on all Department research-related issues.
- I was the Director of the WETA research group (from 2005 to 2010); also Director of the SDE (Systems Design and Evaluation) research group (2009). This entails to provide leadership to the group in all academic matters relating to that group.
- I chaired the CS Graduate Student Travel Award (reports to the RC), offered to CS Graduate students who have accepted papers at peer-reviewed conferences with papers to be published at the conference's proceedings (2007-2009).
- I was a member of the CS Best Student paper Committee (2008).
- I was a member of the CS Gibbons Lectures Committee (2008 – 2010), which comprised participating in the planning of a series of lectures initiated as homage to Associate Professor Peter Gibbons.
- I chaired the CS SDE Group's Performance-based Research Assessment (PBRF) Budget Chair (2008 – 2010), thus managing the allocation of PBRF Funds to the SDE Research Group.
- I was member of the Department's Staffing Advisory Committee (2008). This committee judged the CS promotion applications applied for in 2008.
- I chaired the CS Best PhD Thesis sub-committee (2009).
- I was a fire warden for the 5th floor (2004 – 2010).
- I attended most Graduation ceremonies.
- I helped with Courses and Careers day at the CS information desk.
- I was a member of the External Research Development Committee (reported to RC) (2005-2006). The main roles of this committee were to provide research grant mentoring and strategies for research opportunities.
- I chaired the Research Liaison Forum (reported to RC) (2005-2006). This activity involved managing the various seminar co-ordinators, visitor co-ordinator, research publicity co-ordinator, and technical report co-ordinator. The key role here was to ensure that the RC knew what the various members were doing.
- I was deputy Director of the Hymermedia Unit (HMU) (2000 to 2004);
- I helped plan the Software Engineering degree accreditation (2003 for 6 months);
- I was a member of the Department's teaching-formula sub-committee (2003);
- I was the Department's Research Seminar coordinator (~2001 to June 2002).
- I was the Department's Research Poster Judge (2005).

Professional Activities

Seminars and Tutorials

See pages 5 and 6 for details

Consulting Work

While at the University of Auckland I undertook consulting work in numerous areas, such as Web cost estimation, usability & software measurement, and databases. I worked closely with local and international software & Web development companies in Auckland to help them improve their current processes and project management techniques via the use of expert-based models. My work in this area led to an invitation to collaborate with the Brazilian ICT industry developing models to help software and Web companies in Rio de Janeiro and São Paulo, providing valuable New Zealand IP export opportunities for Web Bayesian models. One of the models, developed for a large corporate software healthcare company located in Auckland, was so well received by the company's overseas partners that this company has now increased the number of outsourced projects it manages.

In addition, I have also participated in the database modelling and design of a software metrics repository to be used by a project management tool by an Auckland software company (funded under a New Zealand government research grant), and measured the usability of a set of educational Web applications used in numerous schools throughout Auckland.

While living in Brazil (up to 1995) I have also provided training to the local Brazilian ICT industry in areas such as databases, data modelling and object oriented design and programming.

Organisation and Co-organisation of Industry Events
In relation to the organisation and chairing of events and conferences, in 2007 I organised an industry workshop on Web resource estimation, in collaboration with the Web Developers Association of New Zealand (WDANZ), to foster collaboration with Web companies as part of the Marsden project. Previously, I had also organised in 2004 an industry workshop on Web cost estimation for local NZ companies to foster collaboration with the Local Web industry as part of the Tukutuku project, and helped organise an industry event for software and Web companies, aimed at fostering collaboration between the Computer Science Department and the local ICT industry.

Chairing/Co-chairing in/of Conferences and Workshops
I have participated in the running of numerous conferences and workshops by either chairing/co-chairing the entire event, or parts of it, detailed as follows:

1. Conference Chair for the 2017 Evaluation and Assessment in Software Engineering Conference.
2. Program Committee Co-Chair for the 41st Euromicro Conference series on Software Engineering and Advanced Applications (SEAA) in 2015**.** We managed seven tracks and four special sessions, all with their own Co-chairs and program committee members.
3. Conference Program Committee Co-Chair (short-papers) for the 2013 Empirical Software Engineering and Measurement Conference (ESEM).
4. Conference Program Committee Co-Chair (full-papers) for the 2012 Evaluation and Assessment in Software Engineering Conference (EASE) and the 2012 Empirical Software Engineering and Measurement Conference (ESEM).
5. Publicity Chair (South America) for the 2014 Requirements Engineering Conference (RE).
6. Workshops Chair for the 2007 International Web Engineering Conference; co-edited the Workshops' Proceedings.
7. Conference Program Committee Chair (short papers) for the 2006 ACM/IEEE ISESE conference.
8. Posters and Demonstrations Chair for the 2005 International Web Engineering Conference.
9. Local arrangements Co-chair for the International Symposium on Information Theory and its Applications (ISITA2008).
10. Publicity and Organisation committees for the 2009 Australian Conference on Software Measurement
11. Doctoral Symposium Chair for the following Conferences: 2008 International Conference on Web Engineering; 6th International Conference on Predictive Models in Software Engineering (PROMISE'2010).
12. Doctoral Symposium Co-chair for the 11th Conference on Product Focused Software Development and Process Improvement (PROFES'2011).
13. Chair for the 1st and 2nd Workshops on Web Measurement and Metrics, co-located with the International Conferences on Web Engineering 2005 and 2006.
14. I have also chaired throughout the years numerous sessions at Conferences, in particular at EASE, ICWE and ESEM.

Curriculum Assessment
Reviewer of the curriculum for the new Software Engineering Degree program (BSE) proposed by the International Islamic University Malaysia.

SEEK Project
From 2001 to 2002 I have participated as an Education Knowledge Area Volunteer for the ACM and IEEE Software Engineering Education Knowledge (SEEK), which aimed to determine the knowledge to be included in an undergraduate software engineering program. I was the only NZ academic who participated as volunteer in this project. This guide has been used worldwide and adopted in industry and academia (see http://sites.computer.org/ccse/artifacts/FirstDraft.pdf details).

References

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APPENDIX A: Publication List

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APPENDIX B: Details about Current and Past Research Collaborations and Projects

Ongoing Research Collaborations/Projects

Supporting Decision-making under Uncertainty for Value Estimation of Software-Intensive products and services: The aim and thus the main contribution of this research project is to build tangible models with tool support to cater for the specific needs of our industry partners and support them (and their customer companies) to move from a cost-based to a value-based decision making when managing and developing software products and projects. This research is being carried out as part of the FiDiPro VALUE project, at the University of Oulu, with the participation of four companies in Helsinki and Oulu. This project mixes several methods of research investigation (e.g. case studies, interviews), and combines both basic and applied research. The basic research relates to investigating algorithms for the semi-automatic generation of probabilities in Bayesian Networks; the applied research relates to aspects such as: elicitation, merging and validation of value factors via interviews and focus groups meetings (qualitative research using Grounded Theory and leading to a theory of decision-making for features selection); tool usability assessment, validation of value estimation Bayesian Network models via case studies. As part of this project we are also carrying out several systematic literature reviews in topics such as semi-automated methods for probability generation and value-based software engineering. This work is being carried out with a research team consisting of a postdoc, two PhD students and also two visiting scholars.

Prognosis of Dementia using Machine Learning techniques: The medical guidelines used by physicians are traditionally made for the diagnosis and treatment of single diseases, but it's not uncommon for patients to feature more than one disorder at a time. The term comorbidity is used in the health context as to refer to patients that have more than one chronic disorder at the same time. This is an important topic, mainly concerning the aging population as shown in a study conducted in United States in 1999, where almost half of the public health care users aged 65 or higher were in comorbid situations and these cases accounted 89% of the stipulated budget. So, it is interesting to optimize the treatment of these patients. Having the situation above as the motivation, this work aims to provide a model-based framework for the physicians to access knowledge and help with the decision-making process concerning aging patients in comorbid situations. In order to achieve this, it is intended to use Bayesian networks in conjunction to the health knowledge that will be provided by physicians and the SNAC (The Swedish National Study on Aging and Care), which is a long-term Swedish project, that aims to study the aging population's health as well as the provided social care. This project contains a database with collected data from a subset of the aging population in Sweden for about 12 years. Handling this database and its thousands of variables also show the need for employing big data techniques. This research is part of a PhD research by Ana Dallora, a PhD students at BTH, with the co-supervision of Professor Johan Berglund (BTH).

Agile Security Capability Measurement and prediction: The software industry is moving to agile development processes, and this assumes that an agile team has sufficient skills to get the job done, and does not have to rely on external experts. In traditional software development, security issues are handled by experts. However, in agile development, security issues should be handled by the team. The agile process must, therefore, be extended with security related quality control and support. The three main contributions of the PhD research focus of this research are the following:

i) To define a security maturity index for agile teams.
ii) To develop models that can estimate the security maturity level of a team based on factors that are to be identified in collaboration with two companies that develop security critical applications using agile processes.
iii) To use the models proposed in ii) to also estimate the security level and development cost of a software module by considering the security maturity level of the team developing the module.

This research will employ a mix of qualitative and quantitative research, and the prediction models will use techniques from machine learning. Further, the results from this research will be applied and evaluated in two industry settings: a large software development organization, and a small company, both in Karlskrona (Sweden). The PhD student carrying out this research is co-supervised by myself and by another Full Professor at BTH – Lars Lundberg.

Investigating the effects of personality on software team productivity and climate: Given that software development project team composition is one of the main factors contributing to the success or failure of a project, making it important to understand to what extent personality types (in particular, dysfunctional dispositions) have an effect on team productivity and climate. There is a growing interest in dysfunctional dispositions in the workplace, and has growing importance in organizational psychology where it has been found that such traits can be both positive and negative predictors of workplace performance (including team-working). Therefore the objective of this research is to investigate the effect of personality composition of teams on team performance and climate. This research is being carried out in collaboration with Dr. N. Salleh (International Islamic University, Malaysia), Professor J. Grundy (Swinburne University of Technology, Australia), and Dr. Giles Burch (University of New South Wales, Australia).

Previous Research Collaborations/Projects

Building a Theory for Web Resource estimation: The aim of this project is to have a detailed understanding regarding the fundamental factors and relationships for Web resource estimation. This is being carried out using both quantitative (e.g. case studies) and qualitative (e.g. grounded-theory) research methods. This research is being carried out in collaboration with Dr. Muhammad Sulayman and Dr. Mehwish Riaz (University of Auckland, New Zealand), and Dr. Tayana Conte (University of Manaus, Brazil), and with the participation of numerous ICT companies in New Zealand and Brazil.

Web and Software Cost Estimation: This research investigates the proposal and comparison of cost estimation techniques, and ensembles (combinations) of techniques for Web and software cost estimation. Examples of such techniques are multivariate regression, case-based reasoning, and classification & regression trees. The Web applications focus of this research project can be either dynamic or static. I have employed both student-based and industrial datasets on this research, where the industrial datasets are either the Tukutuku database (data on Web projects) or the International Software Benchmarking Standards Group (ISBSG) dataset (data on software projects). This research project allowed me to collaborate with industry (Dr. N. Mosley from MetriQ Limited, Dr. Jaime Gomez from VisualWade, Mr. Dave Braddock from Dataview, Mr. Marcos Villas from RSI), and other academics within NZ (Professor C. Triggs (Statistics), Associate Professor R. Fewster (Statistics), and Associate Professor I. Watson: University of Auckland (New Zealand)) and from overseas: Professor B. Kitchenham: Keele University (UK); Professor M. Jorgensen: Simula Research Laboratoty (Norway); Dr. S. Counsell and Professor Martin Shepperd: Brunel University (UK); Dr. Chris Lokan: The University of New South Wales @ Australian Defence Force Academy (Australia); Associate Professor Filomena Ferrucci, Dr. Carmine Gravino: University of Salerno (Italy); Dr. Sergio Di Martino, Dr. A. Corazza: University of Napoli (Italy); Professor Ali Idri: University Mohamed V Souissi (Morocco); Dr. Matina Bibi, Dr. Nikolaos Mittas, Associate Professor Lefteris Angelis, Professor Ioannis Stamelos: Aristotle University of Thessaloniki (Greece); Dr. Silvia Abrahao: Valencia University of Technology (Spain)); Mr. Damir Azar (current PhD student at the University of Auckland, New Zealand).

Cross-company cost models versus within-company cost models: This research investigates to what extent a cross-company cost model (model built using project data from several organisations) can be successfully employed to estimate effort for projects that belong to a single company, where no projects from this company were previously used to build the cross-company model. Different data sets have been employed in this research, representing data on either Web projects, or Software Projects. Examples of such databases are the Tukutuku database (Web projects), and the International Software Benchmarking Standards Organisation (ISBSG) database. As part of this research, we have also conducted a detailed systematic literature review in order to understand, based on existing published literature, under which conditions companies should use single-company effort estimation models. I have collaborated with the following researchers and practitioners: Professor B. Kitchenham: Keele University (UK); Professor Chris Triggs (University of Auckland (New Zealand)); Dr. Chris Lokan: University of New South Wales @ ADFA (Australia); Dr. S. Counsell: Brunel University (UK); Dr. N. Mosley: MetriQ Limited (New Zealand); Professor Guilherme Travassos: Federal University of Rio de Janeiro (Brazil).

Evidence-based Web/software engineering: This research looks to provide and validate guidelines that may be used by researchers and practitioners to help them obtain and compile results that together will give evidence on the use of methods, technologies and processes they employ. One of the main components in the research

is the use of a systematic literature review process that leads to unbiased results and interpretation. This work has been carried out in collaboration with Professor B. Kitchenham (Keele University (UK)), Professor M. Shepperd (Brunel University (UK)), Professor S. MacDonell (Auckland University of Technology (New Zealand)), Professor G. Travassos (Federal University of Rio de Janeiro (Brazil)), Professor J. Grundy (Swinburne Institute of Technology (Australia)), Associate Professor E. Tempero (University of Auckland (New Zealand)), Professor J. Maldonado (Federal University of São Paulo (Brazil)), and several former PhD students (Dr. N. Salleh, Dr. M. Sullayman, Dr. M. Riaz, Dr. K. Felizardo).

Bayesian Modelling for Web Resource Estimation: The goal of this research is to construct and validate company-specific Bayesian Network (BN) models, each incorporating a company's fundamental factors related to resource estimation of Web projects, their relationships and associated uncertainties. A Bayesian Network is a model that embodies existing knowledge of a complex domain in a way that supports reasoning under uncertainty. It combines the advantages of an intuitive representation with a sound mathematical basis in Bayesian probability. This research project was initiated as part of a New Zealand Royal Society government grant (Marsden-Fast Start research grant), initiated in April 2007, and completed in 2009. Its continuation was also funded by a Visiting Scholar Fellowship awarded by CAPES, in partnership with the Federal University of Rio de Janeiro (COPPE/Sistemas; contact: Professor Guilherme H. Travassos).

Early Web size metrics for cost estimation: This research focuses on the identification of size metrics that can be estimated by companies early on in the development life cycle of a Web application. I have examined early metrics that can be obtained from the requirements documentation and also those that can be obtained directly from customers using, for example, on-line Web price quote forms. Two University of Auckland's grants were obtained to extend this work, one in collaboration with A/Professor L. Baresi (Politecnico of Milano (Italy)) and Professor S. Morasca (University of Studi dell'Insubria (Italy)); another in collaboration with Associate Professor Filomena Ferrucci (University of Salerno (Italy)). A visiting fellowship by the Spanish government was also provided to extend this work with Dr. Silvia Abrahão and Professor Oscar Pastor (Valencia Polytechnic of Technology (Spain)) during the Research and Study leave in 2006.

Bayesian Modelling for Product and Process Improvement: The goal of this research is to construct and validate company-specific Bayesian Network (BN) models, where each incorporates a company's fundamental factors related to product and process improvement within the context of Web projects, their relationships and associated uncertainties. In addition to building these models, this research also proposes the development of tools that will be used as plug-ins to other existing software tools, thus allowing Web companies not only to use their company-specific models, but also to adapt each model according to their own needs. This research project is part of a large New Zealand government research grant (FORST/SER Research Grant). The grant was initiated in October 2007 and was completed in June 2011.

Tukutuku Benchmarking project: This project was initiated in the second semester of 2002 during my Research and Study leave. It has two main goals: i) to collect data on early effort predictors from completed Web projects, to be used to develop and compare Web cost estimation models; to benchmark productivity across and within Web Companies. To date data on 195 finished projects mostly from 10 different countries has been gathered, leading to the Tukutuku database. Each Web project in the database is characterized by 25 variables, related to the application and its development process. These size measures and cost drivers have been obtained from the results of a survey investigation[8], using data from 133 on-line Web forms aimed at giving quotes on Web development projects. In addition, these measures and cost drivers have also been confirmed by an established Web company and a second survey involving 33 Web companies in New Zealand. Further details on Tukutuku are available at http://www.cs.auckland.ac.nz/tukutuku.

Assessing the effectiveness of pair-programming for Computer Science learning: This research investigates the use of pair-programming as an effective technique to help students learn Computer Science. This work has been done in collaboration with Ms. N. Salleh (University of Auckland's PhD student), Professor J. Grundy

[8] MENDES, E., N. MOSLEY, and S. COUNSELL, Investigating Web Size Metrics for Early Web Cost Estimation, Journal of Systems and Software, 77(2), 157-172, 2005. Journal Impact Factor = 1.34; 32 citations to date.

(Swinburne Institute of Technology (Australia)), Dr. Giles Burch (The University of Sydney (Australia), (Mr. Andrew Luxton-Reily (University of Auckland)), and Ms. L. Al-Fakhri (former MSc student).

Web process improvement for small and medium Web companies: This research investigates Software Process Improvement (SPI) by proposing a theoretical model of SPI success factors for small and medium Web companies. Both quantitative and qualitative analysis techniques are being employed, and data are being gathered using empirical investigations such as interviews and surveys. A PhD student (Mr. M. Sulayman: University of Auckland (New Zealand)) and Professor C. Urquhart: Manchester Metropolitan University (UK) were collaborators in this research.

Database-driven Software Maintainability Prediction: This research investigates metrics and prediction models to be used to estimate the maintainability of database-driven software applications. Both quantitative and qualitative analysis techniques are being employed, and data are being gathered using empirical investigations such as interviews and surveys. A PhD student (Ms. M. Riaz: University of Auckland (New Zealand)) and Associate Professor E. Tempero: University of Auckland (New Zealand) were collaborators in this research.

Automatic measurement of COSMIC-FFP from requirements and design documents: This research aimed to provide organisations with a software environment to automatically measure the size of their new projects, using a function points approach called COSMIC-FFP, from their requirements and design documentation. This project was partially supported by a New Zealand government research grant (FoRST grant for Domain-Specific Software Tools), in which I was a collaborator.

Case Based reasoning adaptation techniques: This research looks at the employment of Case-based reasoning adaptation rules in the context of software effort estimation. Adaptation rules are used to adapt the estimated effort, according to a given criterion, such that it reflects the characteristics of the new target project more closely. A University of Auckland grant and a Royal Society of New Zealand (RSNZ ISAT) grant were obtained to further this work in collaboration with Professor M. Shepperd: Brunel University (UK).

People issues in software development: This research investigated the role that personality types have in the effective management of software projects. This project has been carried out in collaboration with Dr. S. Counsell: Brunel University (UK).

Web usability inspection: This research proposed and validated a Web Design Perspectives-based Usability Evaluation (WDP), an inspection technique specifically designed to assess the usability of Web applications. This technique combines Web design perspectives and the heuristic evaluation method proposed by Nielsen. This work was carried out as part of a PhD research by Dr. Tayana Conte.

Web usability measurement: This research investigated the effectiveness of existing usability measurement techniques, in comparison with users' subjective perception of usability. This research was carried out in collaboration with a MSc student M. Yip.

Metrics for productivity measurement: This research investigated the use a productivity method where software productivity can be measured as size/effort despite the existence of several effort-related size metrics. This work was carried out in collaboration with Professor B. Kitchenham: Keele University (UK).

Risk Analysis and portfolio management for Web projects: This research proposed a portfolio management method that used effort estimates to build sets of feasible deadlines for software projects at the bidding stage. The model is built using a single effort estimate for each current project, together with historical data on estimated and actual effort for former projects. This work was carried out with Associate Professor R. Fewster: University of Auckland/Statistics (New Zealand).

Quality measurement to improve Hypertext/Hypermedia authoring: This was part of my PhD research, and aimed to help authors develop high quality large hypermedia applications for education. The quality characteristics considered are the reusability of information, the maintainability of applications and the

authoring effort. My supervisors were Professor W. Hall (University of Southampton) and Professor R. Harrison (Reading University). This work resulted in four journal papers, and eight conference papers.

Metrics framework and effort measurement: This research encompassed the integration of a software metrics framework into a project management tool, in partnership with a local NZ company. This framework allows for the definition and measurement of any type of metrics and their association to project attributes, such as effort and duration. This project was supported by a FRST/NERF grant for Domain-Specific Software Tools, on which I am a participant.

Object-oriented design metrics: This research included the proposal and validation of object-oriented metrics, more specifically, coupling and cohesion metrics, used to measure the quality of object-oriented design and implementations, using object-oriented languages. This work was carried out in collaboration with Dr. Steve Counsell: Brunel University (UK).

Assessing the effectiveness of the CFT for teaching: This research investigated the usefulness of the Cognitive Learning Theory to learning Computer Science and Web engineering.

Investigating the effects of personality on team productivity and climate: This research investigates the effect of personality composition of teams on team performance and climate, with particular focus on the following points: i) Effect of a team leader's personality on team performance and climate; ii) Effect of team members' personalities on team performance and climate; iii) Effect of heterogeneity of personalities on team performance and climate. This work has been done in collaboration with Dr. Giles Burch: University of Sydney/Psychology (Australia).