

Curriculum Vitae

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1. Biographical Statement

Dr. Olga Ormandjieva is Associate Professor in the Computer Science and Software Engineering (CSE) Department at Concordia University, Montreal, Quebec (Canada) and a member of the Ordre des Ingénieurs du Québec (OIQ). She holds a Ph.D. in Computer Science (2002) and Master's Degree in Computer Science and Mathematics (1987). Dr. Ormandjieva joined the Department in 2002 as an Assistant Professor.

She has conducted extensive research in the area of Measurement in Software Engineering and its extension to the development of formal methods for modelling and monitoring functional and nonfunctional requirements. Her current research work addresses the problem of automatic detection of cyber-predators in social media using Artificial Intelligence (AI) technology and best Software Engineering practices. Dr. Ormandjieva's new research direction aims at exploring different approaches to big data quality modeling and measurement. She has over 120 peer-reviewed journal and conference papers to her name, as well as seven book chapters. Dr. Ormandjieva has received several grant fundings from the Natural Sciences and Engineering Research Council (NSERC) and other sources since 2002. She has graduated seven doctoral students, seventeen students in the Master's program (thesis option) and is held in very high esteem by all those she supervises. Currently she is teaching software engineering undergraduate and graduate courses at Concordia University.

Throughout her academic career she has contributed to the departmental governance. Her service to the academic community includes organizing/chairing sessions at international conferences and workshops, participating in program committees for various international conferences, and serving as external reviewer for highly ranked journals such as *Journal of Software Systems and Software*. She also served as secretary of the IEEE Montreal Computer Chapter. As Professional Engineer, Dr. Ormandjieva served on the visiting team for the Canadian Engineering Accreditation Board (CEAB) Accreditation Visit as a program visitor for the software engineering program to Carleton University in November 2017.

Expertise: Measurement in Software Engineering and Data Science, Empirical Software Engineering, Software / Big Data Project Management, Software Requirements Engineering, Formal Methods.

2. Curriculum Vitae

2.1 Employment history

2008 to present	Associate Professor , Computer Science & Software Engineering Department (CSE), Concordia University
2002-2008	Assistant Professor , Computer Science & Software Engineering Department (CSE), Concordia University
2001- 2002	Lecturer , Computer Science & Software Engineering Department (CSE), Concordia University
2001	Graduate Teaching Assistant , Computer Science & Software Engineering Department (CSE), Concordia University
1998-2001	Faculty Research Assistant , Computer Science & Software Engineering Department (CSE), Concordia University
1996-1997	(Maternity leave)
1991-1995	Lecturer , LSI Department, Polytechnic University of Catalonia, Spain
1993-1994	Part-Time Instructor , Instituto Catalan de Tecnologia, Barcelona, Spain

2.2 Academic background

1998-2002	Ph.D. in Computer Science Concordia University, Montreal
1984-1987	M.S. in Computer Science and Mathematics University Central Las Villas, Cuba
1981-1984	B. in Mathematics University "Clement Ojridski", Sofia, Bulgaria

2.3 Professional Memberships

2.3.1 IEEE

I served as secretary of the IEEE Montreal Computer Chapter in 2008 – 2010. I was also the Chair of the IEEE Montreal Women in Engineering WIE Affinity Group in 2008 – 2011.

2.3.2 Ordre des Ingénieurs du Québec

Professional Engineer. Membership Number: 130066

2.4 Service

2.4.1 Contribution to the Canadian Engineering Accreditation Board (CEAB)

I served as a *program visitor* for the software engineering program on the visiting team for Accreditation Visit to Carleton University in November 2017.

Engineers Canada is the national organization of the 12 provincial and territorial associations that regulate the practice of engineering and license the country's more than 290,000 members of the engineering profession. Engineers Canada established the Canadian Engineering Accreditation Board to accredit Canadian undergraduate engineering programs that meet or exceed educational standards acceptable for professional engineering registration in Canada.

Below please find participation confirmation issued by Engineers Canada in reference to the Carleton Accreditation Visit in 2017.



REF: CARLETON - 2017 VISIT

CONFIDENTIAL

January 3, 2018

Dr. Olga Ormandjieva, ing.
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Dear Dr. Ormandjieva:

RE: November 25 – 28, 2017 Accreditation Visit to Carleton University

On behalf of the Canadian Engineering Accreditation Board, I thank you for the time and effort you devoted as a program visitor for the software engineering program on the visiting team for the above-referenced accreditation visit.

Engineers Canada views the work of the Accreditation Board as one of its major functions. Without the dedicated efforts of professionals like you, our world class accreditation system simply could not function.

Please know that your time and effort are valued and appreciated.

Yours truly,



Adam Rodrigues
Coordinator, Accreditation Visits
Coordonnateur, Visites d'agrément

2.4.2 Departmental Committees and Other Assignments.

Throughout my academic career I have contributed to the departmental and institutional governance. The following sections outline my involvement in service-related activities since I joined Concordia University in 2002. My service to the CSE Department and the faculty includes my workload on the committees to which I have been appointed during my stay at Concordia.

Committee Workload (current and previous):

- ENCS Ph.D. Defence Chairing Committee
- Department Resources Committee PTHC (part-time hiring committee)
- College of Ethics Reviewers (CER)
- COOP program director for the CSE Department
- Program development committee for Major/Minor in Alternative Economies for Social and Environmental Justice (Concordia University)
- The College of Ethics Reviewers (CER)
- Software Engineering SOEN curriculum committee
- Member of the PTHC (part-time hiring committee)
- Member of the Hiring Committee for faculty positions in the Software Engineering group
- Member of the CSE graduate awards committee
- Participated in the Assessment of CEAB Attributes for SOEN courses
- Member of the Undergraduate Advisory Committee (UGAC)
- Member of the Research Graduate Advisory Committee (GAC)
- Member of the Course Graduate Advisory Committee (CGAC)

Thesis Examination Committees

I chaired a large number of Master's and Doctoral theses. I served as Committee Examiner for numerous Master's and Doctoral theses, in the CSE Department and in the Faculty of Engineering. I also served on the supervisory committees for many Master's and Doctoral thesis students in the Department and in the Faculty of Engineering in general. I served as well as an examiner for many Major Reports of graduate students at our department.

2.4.3 Service to the Academic Community

Program Chair/Committee Member for Conferences/Workshops:

I chaired sessions at several conferences (International Workshop on Combinatorial Image Analysis 2018, ANT 2017, MobiSPC, MENSURA-IWSM, SERA, etc.) I also served as a Program Chair of Software Engineering Research, Management and Applications (SERA 2010) and as financial officer for ICPRAI 2018. I organized a workshop on Quantifying the estimation of efforts for building Non-functional Requirements at MENSURA-IWSM2007 conference.

My service to the academic community includes participation on the program committees for several international conferences/workshops:

- Canadian Conference for Computer Science (C3S2E) Program Committee member
- Software Engineering Research, Management and Applications (SERA). Program Committee member

- International Working Conference on Requirements Engineering: Foundation for Software Quality. Program Committee member
- EUROMICRO CONFERENCE on Software Engineering and Advanced Applications (SEAA). Program Committee member
- IEEE Ninth International Conference on Research Challenges in Information Science RCIS. Program Committee member
- IEEE International Requirements Engineering Conference. Program Committee member
- International Conference on ICT in Education, Research, and Industrial Applications ICTERI. Program Committee member
- First International Workshop on Formal Methods for Self-Adaptive Systems (FMSAS), Program Committee member
- International Conference on Advanced Software Engineering & Its Applications (ASEA), Program Committee member
- EUROMICRO CONFERENCE on Software Engineering and Advanced Applications (SEAA), Program Committee member
- International Conference on Self-organization and Adaptation of Computing and Communications (SSCC). Program Committee member
- Canadian Conference for Computer Science (C3S2E) Program Committee member.
- Software Engineering Research, Management and Applications (SERA). Program Committee member
- CSIE World Congress on Computer Science and Information Engineering, Program Committee member
- IEEE Canadian Conference on Electrical and Computer Engineering. Technical Program Committee member
- International Workshop on Formal Methods for Self-Adaptive Systems (FMSAS), Program Committee member
- International Conference on Advanced Software Engineering & Its Applications (ASEA) Program Committee member
- EUROMICRO CONFERENCE on Software Engineering and Advanced Applications (SEAA) Program Committee member
- The Joint Conference of the International Workshop on Software Measurement (IWSM) and the International Conference on Software Process and Product Measurement (Mensura). Program Committee member
- CSIE World Congress on Computer Science and Information Engineering, Program Committee member

Journals Editorial Board / External Reviewing:

- Evaluation of NSERC grant applications
- Review of manuscripts for the Requirements Engineering Journal
- Review of the manuscript of the book “Software Metrics: A Rigorous And Practical Approach Third Edition” by Norman Fenton and James Bieman,
- Member of the Editorial Board of the "International Journal On Advances in Software" ISSN 1942-2628
- Review of manuscripts for the Journal of Supercomputing, Springer
- Review of manuscripts for the Informing Science Institute InSITE, InformingScience.org

- Review of manuscripts for the Journal of Intelligent and Fuzzy Systems, STM Publishing House. IOS Press
- Review of manuscripts for the International Journal of Software Engineering and Knowledge Engineering, World Scientific Publishing Company
- Review of manuscripts for the Information Systems Journal (Elsevier)
- Review of manuscripts for the Requirements Engineering Journal
- Review of the manuscripts for Journal of Systems and Software
- Review of a manuscript for Pervasive Health book

2.5 Publications

My strategy for research and publications has been to create a strong research group and build the required lab environment, publish at top workshops and good quality specialized conferences; and then target good international journals in the field.

The quality and quantity of my publications indicate a healthy and encouraging research status. Since 2002, I have authored/co-authored 22 refereed journal papers, 98 refereed conference/workshop papers and 7 book chapters. My journal publications have been published or are in press in refereed journals with an impact factor in the range of 0.60 to 2.71 (for comparison purposes, the impact factor of the IEEE’s software journal, which is considered to be the gold standard among software engineering publications, is in the range of 1.5).

In conclusion, I believe that I have made a significant contribution to the research output of the CSE Department with my emphasis on engineering activities in research.

2.5.1 Summary Table of Publications:

This section presents a summary of my contribution to the research output of our department in the field of software engineering. The table below summarizes my publications by number:

Type of publications	Life-time
Refereed Journal Publications	22 published
Refereed Conference / Workshop Publications	101 published
Chapters in Books	7 published
Total number of citations (as of April 19, 2019; Google Scholar)	1076

Note: the names of the students-coauthors are marked with *

2.5.2 Referred Journal Papers

Please note that there were no journal publications in: i) 2014: the major research achievements were published in book chapters instead; ii) 2018: due to a long-term disability leave.

- [1] Alnanih*, R. and Ormandjieva, O. (2017) Improving Software Quality-in-Use Model for Mobile Applications. MetricsNEWS, Volume 22, Number 1, February 2017, 17-34.

- [2] Ebrahimi*, M., Suen, C. Y., & Ormandjieva, O. (2016). Detecting predatory conversations in social media by deep Convolutional Neural Networks. *Digital Investigation* (2016), doi: 10.1016/j.diin.2016.07.001. [Journal Impact: 2.34]
- [3] Ebrahimi*, M., Suen, C. Y., Ormandjieva, O., & Krzyzak, A. (2016). Recognizing Predatory Chat Documents using Semi-supervised Anomaly Detection. *Electronic Imaging*, 2016(17), 1-9. Publisher: Society for Imaging Science and Technology. [Journal Impact: 0.98]
- [4] Zhu*, M., Grogono, P., Olga Ormandjieva, Heng Kuang (2016). Using Failures and Category Theory to Verify Process Communications between Design and Implementation of Concurrent Systems. *Procedia Computer Science Journal*, Elsevier. Volume 83, 2016, pp. 700-704. [Journal Impact: 1.08]
doi:10.1016/j.procs.2016.04.155
<http://www.sciencedirect.com/science/article/pii/S1877050916301867>
- [5] Ormandjieva, O., Bentahar, J., Huang*, J., Kuang*, H. (2015) Modelling Multi-agent Systems with Category Theory. *Procedia Computer Science Journal*, Elsevier. Volume 52, 538-545, ISSN 1877-0509, <http://dx.doi.org/10.1016/j.procs.2015.05.031>. [Journal Impact: 1.08]
- [6] Omidbakhsh*, M., & Ormandjieva, O. (2015). Goal-driven Modeling for Confidence-based Patient Numeracy Assessment: C-PNA. *Procedia Computer Science Journal*, Elsevier. Volume 63, 213-220. DOI:10.1016/j.procs.2015.08.336 [Journal Impact: 1.08]
- [7] Zhu*, M., Grogono, P., Ormandjieva, O. (2015) Using Category Theory to Verify Implementation Against Design in Concurrent Systems, *Procedia Computer Science Journal*, Elsevier. Volume 52, 530-537, ISSN 1877-0509 . [Journal Impact: 1.08]
<http://dx.doi.org/10.1016/j.procs.2015.05.030>.
- [8] Alnanih*, R., Ormandjieva, O., & Radhakrishnan, T. (2013). Context-based and Rule-based Adaptation of Mobile User Interfaces in mHealth. *Procedia Computer Science Journal*, Elsevier. Volume 21, 390-397. [Journal Impact: 1.08]
- [9] Hussain*, I., Kosseim, L., Ormandjieva, O. (2013). Approximation of COSMIC functional size to support early effort estimation in Agile. *Data & Knowledge Engineering*, Elsevier. Volume 85, 2-14. . [Journal Impact: 1.50]
- [10] Alnanih*, R., Radhakrishnan, T., & Ormandjieva, O. (2012). Characterising context for mobile user interfaces in health care applications. *Procedia Computer Science Journal*, Elsevier. Volume 10, 1086-1093. [Journal Impact: 1.08]
- [11] Talib*, M. A., El Barachi, M., & Ormandjieva, O. (2012). An Innovative Marketing Strategy to Promote our College of IT: Zayed University Case Study. *Issues in Informing Science & Information Technology*, 9, 161. ISSN: 1547-5840.
<http://iisit.org/Vol9/IISITv9p161-175Talib042.pdf>
- [12] Talib*, M. A., El Barachi, M., Khelif, A., & Ormandjieva, O. (2012). Guide to ISO 27001: UAE Case Study. *Issues in Informing Science and Information Technology*, 7. ISSN: 1547-5840.
<http://iisit.org/Vol9/IISITv9p331-349Talib041.pdf>.
- [13] Shaban-Nejad, A., Ormandjieva, O., Kassab*, M., & Haarslev, V. (2009). Managing requirement volatility in an ontology-driven clinical LIMS using category theory. *International Journal of Telemedicine and Applications*, 8.

- [14] Zheng*, M., Alagar, V., & Ormandjieva, O. (2008). Automated generation of test suites from formal specifications of real-time reactive systems. *Journal of Systems and Software*, 81(2), 286-304. [Journal Impact: 2.71]
- [15] Ormandjieva, O., Alagar, V. S., & Zheng*, M. (2008). Early quality monitoring in the development of real-time reactive systems. *Journal of Systems and Software*, 81(10), 1738-1753. [Journal Impact: 2.71]
- [16] Olga Ormandjieva, O., Vassev, E. (2008). ASSL Specification of a Self-Scheduling Modeling and Monitoring in Reactive Autonomic Systems: Team-Robotics Case Study. *International Transactions on Systems Science and Applications*, Volume 4 (3), October 2008, pp. 277-286.
- [17] Ormandjieva, O., Abu Talib*, M., & Abran, A. (2008). Reliability Model for Component-Based Systems in COSMIC-FFP (a Case Study). *International Journal of Software Engineering and Knowledge Engineering*, 18(04), 515-539.
- [18] Ormandjieva, O., & Vassev, E. (2007). ASSL Specification of a Self-Scheduling Mechanism in Team-Robotics Modeled with the AS-TRM. *Communications of SIWN (formerly: System and Information Sciences Notes)*, Volume 2 (1), September 2007, pp. 132-137. [Journal Impact: 0.60]
- [19] Abu Talib*, M., Ormandjieva, O., Abran, A., & Buglione, L. (2006). Scenario-based Black-Box Testing in COSMIC-FFP: a Case Study. *ASQ Software Quality Professional Journal* 8 (3), pp. 23-33. [Journal Impact: 0.88]
- [20] Ormandjieva, O., Kuang*, H., & Vassev, E. (2006). Reliability Self-Assessment in Reactive Autonomic Systems: Autonomic System-Time Reactive Model Approach. *International Transactions on Systems Science and Applications*, Springer, Volume 2(1), 99-104.
- [21] Da Yu Li*, Kiricenko*, V., & Ormandjieva, O. (2004). Halstead's Software Science in Today's Object Oriented World. *Metrics News Journal* (9) 2, 33-40.
- [22] Alagar, V. S., Achuthan, R., Haydar*, M., Muthiayen*, D., Ormandjieva, O., & Zheng, M. (2003). A rigorous approach for constructing self-evolving real-time reactive systems. *Information and Software Technology*, 45(11), 743-761.

2.5.3 Book Chapters

- [1] Keyvanpour, M., Ebrahimi*, M., Nayebi, N. G., Ormandjieva, O., & Suen, C. Y. (2016). Automated Identification of Child Abuse in Chat Rooms by Using Data Mining. *Data Mining Trends and Applications in Criminal Science and Investigations*, 245-274.
- [2] Talib*, M. A., Abran, A., & Ormandjieva, O. (2016). 2.5 COSMIC FFP and Functional Complexity (FC) Measures: A Study of Their Scales, Units, and Scale Types. *COSMIC Function Points: Theory and Advanced Practices*, 157. Alnanih*, R., Ormandjieva, O., & Radhakrishnan, T. (2014). A new methodology (CON-INFO) for context-based development of a mobile user interface in healthcare applications. In *Pervasive Health* (pp. 317-342). Springer London.
- [3] Alnanih*, R., Ormandjieva, O., & Radhakrishnan, T. (2014). Empirical Evaluation of Intelligent Mobile User Interfaces in Healthcare. In *Advances in Artificial Intelligence* (pp. 23-34). Springer International Publishing.
- [4] Kassab*, M., Olga Ormandjieva. (2014). Non-Functional Requirements in Process-Oriented Approaches. *Encyclopedia of Software Engineering*. Taylor & Francis Group DOI: 10.1081/E-ESE-120050568. ISBN: 1-4200-5977-7; eISBN: 1-4200-5978-5

- [6] Kassab*, M., Ormandjieva, O., Daneva, M. (2010). Managing the Changes and the Attainable Scope of Non-Functional Requirements in Software Engineering. Book Chapter in Methodologies for Non-functional Requirements in Service-oriented Architecture: Requirements Engineering, Model-driven Development, and Security. Information Science Reference-Imprint of: IGI Publishing. Editors: Nikola Milanovic, Junichi Suzuki ISBN-13: 978-1-60566-794-2, ISBN: 1-60566-794-3
- [7] Ormandjieva, O., & Vassev*, E. (2008). Towards ASSL Specification of Self-Scheduling Design and Monitoring in Team-Robotics Modeled with AS-TRM. In Novel Algorithms and Techniques In Telecommunications, Automation and Industrial Electronics (pp. 68-76). Springer Netherlands.

2.5.4 Referred Conferences/Workshops

- [1] Liu*, D., Suen, C.Y., & Ormandjieva, O. (2018) Novel Way of Identifying Cyber Predators. In Proceedings of ICPRAI 2018 - International Conference on Pattern Recognition and Artificial Intelligence, Montreal, arXiv preprint.
- [2] Alsaig*, A., Alagar, V. & Ormandjieva, O. (2018) Foundational Issues on Big Data Science and Engineering. In Proceedings of DASC/PiCom/DataCom/CyberSciTech 2018: pp. 995-1000, Athens, Greece, August 12-15, 2018, IEEE Computer Society 2018, ISBN 978-1-5386-7518-2.
- [3] Alsaig*, A., Alagar, V. & Ormandjieva, O. (2018) A Critical Analysis of the V-Model of Big Data. In Proceedings of IEEE 12th BigDataSE 2018, pp. 1809-1813, New York, NY, USA.
- [4] Khan*, M.N., Ormandjieva, O. & Pitula, K. (2017) Mobile Viewing and Self-Management of Patient's Electronic Health Records (EHRs) with MyHealthCloud. In Proceedings of ACM MobiHoc'2017, Maderas, Chennai, India, July 10-14, 2017
- [5] Omidbakhsh*, M., Ormandjieva, O. (2017). Comparing the Quality of Numeracy Assessment Methods in Healthcare. In Proceedings of IEEE CBMS 2017 - International Symposium on Computer-Based Medical Systems. Thessaloniki, Greece, June 22-26, 2017.
- [6] Zhu*, M., Grogono, P. & Ormandjieva, O. (2017) Exploring Relationships between Syntax and Semantics of a Process-Oriented Language by Category Theory. In Proceedings of 8th International Conference on Ambient Systems, Networks and Technologies ANT-2017, May 16-19, 2017, Madeira, Portugal.
- [7] Alnanih*, R., Ormandjieva, O. (2016) Mapping HCI Principles to Design Quality of Mobile User Interfaces in Healthcare Applications. In Proceedings of The 13th International Conference on Mobile Systems and Pervasive Computing MobiSPC 2016, Montreal, August 15-18, 2016.
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- [10] Zhu*, M., Grogono, P., Ormandjieva, O., Zhao, K. (2016) Verifying Consistency of Process Communications between Design and Implementation of Concurrent Systems. In Proceedings of the 2nd International Conference on Computer and Information Science and Technology (CIST'16), Ottawa, Canada, May 11 – 12, 2016.
- [11] D. Foldes*, D., Pitula, K. and Ormandjieva, O. (2016) Using Tag Clouds as a Tool for Patients' Medical History Visualization and Record Retrieval. Proceedings the N&N Global Technology For Computer and Information Technology 2016, pp. 2-5. Dubai, UAE. Available online:
<http://nngt.org/digital-library/upload/conference10/Daphne%20Foldes1.4.pdf>
 Proceedings: <http://nngt.org/digital-library/conference10.php>
- [12] Ormandjieva, O., Pitula, K., Mansura, C. (2015). Integrating UCD within an Agile Software Development Process in an Educational Setting. In Proceedings of the Canadian Engineering Education Association's Annual Conference - CEEA2015.
- [13] Zhu*, M., Grogono, P., Ormandjieva, O., Kamthan, P. (2015) A Process-Oriented Language: Erasmus for Developing Concurrent Systems. In Proceedings of IsCait 2015.
- [14] Alnanih*, R., Ormandjieva, O., & Radhakrishnan, T. (2014). Empirical Evaluation of Intelligent Mobile User Interfaces in Healthcare. In Advances in Artificial Intelligence (pp. 23-34). Springer International Publishing.
- [15] Zhu,* M., Grogono, P., Ormandjieva, O., & Kamthan, P. (2014). Using Category Theory and Data Flow Analysis for Modeling and Verifying Properties of Communications in the Process-Oriented Language Erasmus. In Proceedings of the 2014 International C* Conference on Computer Science & Software Engineering (p. 24). ACM.
- [16] Alnanih*, R., Ormandjieva, O., & Radhakrishnan, T. (2013). A new quality-in-use model for mobile user interfaces. In Software Measurement and the 2013 Eighth International Conference on Software Process and Product Measurement (IWSM-MENSURA), 2013 Joint Conference of the 23rd International Workshop on (pp. 165-170). IEEE.
- [17] Rashwan*, A., Ormandjieva, O., & Witte, R. (2013). Ontology-Based Classification of Non-Functional Requirements in Software Specifications: A new Corpus and SVM-Based Classifier. In Computer Software and Applications Conference (COMPSAC), 2013 IEEE 37th Annual (pp. 381-386). IEEE.
- [18] Hussain*, I., Ormandjieva, O., & Kosseim, L. (2012). LASR: A tool for large scale annotation of software requirements. In Empirical Requirements Engineering (EmpiRE), 2012 IEEE Second International Workshop on (pp. 57-60). IEEE.
- [19] Alnanih*, R., Ormandjieva, O., Radhakrishnan, T. (2011) Challenges of Designing User Interfaces for Mobile Health Information Systems. In: Proceedings of the IEEE Canada WIE National Conference 2011 (WIENC'11), April 29-30, 2011, Toronto, Canada www.ieee.ca/wie/wienc11/abstracts/Alnanih_et_al.pdf
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- [21] Abdukalykov*, R., Hussain, I., Kassab, M., & Ormandjieva, O. (2011). Quantifying the Impact of Different Non-functional Requirements and Problem Domains on Software Effort Estimation. In Software Engineering Research, Management and Applications (SERA), 2011 9th International Conference on (pp. 158-165). IEEE.

- [22] Talib*, M. A., Khelifi, A., Abran, A., & Ormandjieva, O. (2010). Techniques for quantitative analysis of software quality throughout the sdlc: The swelok guide coverage. In Software Engineering Research, Management and Applications (SERA), 2010 Eighth ACIS International Conference on (pp. 321-328). IEEE.
- [23] Khurshid*, N., Ormandjieva, O., & Klasa, S. (2010). Towards a Tool Support for Specifying Complex Software Systems by Categorical Modeling Language. In Software Engineering Research, Management and Applications (pp. 133-149). Springer Berlin Heidelberg.
- [24] Mikhnovsky*, V., & Ormandjieva, O. (2010). Towards Enterprise Integration Performance Assessment based on Category Theory. In Advanced Techniques in Computing Sciences and Software Engineering (pp. 335-340). Springer Netherlands.
- [25] Kuang*, H., Ormandjieva, O., Klasa, S., & Bentahar, J. (2010). A formal specification of fault-tolerance in prospecting asteroid mission with Reactive Autonomic Systems Framework. In ASAP (pp. 99-106).
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- [27] Ormandjieva, O., Mikhnovsky*, V., Yurasovskaya, E., Klasa, S., Bentahar, J. (2010). Categorical Representation of Software Services Quality and Decision-Making Using Markov Decision Process. In: Proceedings of 20th International Conference on Software Measurement MENSURA2010, Stuttgart, Germany
- [28] Condori-Fernandez, N., Daneva, M., Buglione, L., & Ormandjieva, O. (2010). Experimental study using functional size measurement in building estimation models for software project size. In Software Engineering Research, Management and Applications (SERA), 2010 Eighth ACIS International Conference on (pp. 276-282). IEEE.
- [29] Hussain*, I., Kosseim, L., & Ormandjieva, O. (2010). Towards approximating COSMIC functional size from user requirements in agile development processes using text mining. In Natural Language Processing and Information Systems (pp. 80-91). Springer Berlin Heidelberg.
- [30] Ormandjieva, O., Kuang*, H., & Klasa, S. (2009). Reactive Autonomic System Performance Modeling and Self-monitoring with Category Theory. In ICSOFT (1) (pp. 325-330).
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- [32] Kassab*, M., Ormandjieva, O., & Daneva, M. (2009, September). An Ontology based approach to non-functional requirements conceptualization. In Software Engineering Advances, 2009. ICSEA'09. Fourth International Conference on (pp. 299-308). IEEE.
- [33] Kassab*, M., Ormandjieva, O., & Daneva, M. (2009). A Metamodel for Tracing Non-functional Requirements. In Computer Science and Information Engineering, 2009 WRI World Congress on (Vol. 7, pp. 687-694). IEEE.
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Other Publications

- [1] O. Ormandjieva. Deriving New Measurements for Real-Time Reactive Systems. Ph.D. Thesis. Computer Science Department, Concordia University, Montreal, April 2002.

2.6 Funding

SOURCE OF EXTERNAL FUNDING	Indicate PI or Co-PI	Start Date	End Date	Annual Amount (% if applicable)
Bridge Funding, Faculty of Engineering and Computer Science, Concordia.	PI	10/2017	06/2019	\$15,000
SEED Individual, Research and Graduate Studies, Concordia.	PI	05/2017	04/2019	\$7,000/year
NSERC Discovery Grant	PI	04/2012	03/2017	\$14,000/year
NSERC Engage Grant	PI	04/2010	03/2010	\$25,000
NSERC Canadian Distributed Mentor Project	PI	05/2008	04/2009	\$1,000
NSERC Discovery Grant	PI	04/2005	03/2009	\$19,000/year
NSERC Discovery Grant	PI	04/2002	03/2004	\$12,000/year
Support of Research Theses (SRT) Grant, Office of the Vice-President	PI	01/2005	12/2005	\$23,000
Support of Research Theses (SRT) Grant	PI	01/2006	12/2006	\$30,500
Support of Research Theses (SRT) Grant	PI	01/2007	12/2007	\$32,500
Support of Research Theses (SRT) Grant	PI	01/2008	12/2008	\$41,000
Support of Research Theses (SRT) Grant	PI	01/2009	12/2009	\$24,000
SEED – Individual Grant	PI	06/2014	05/ 2016	\$7,500
SEED – Individual Grant	PI	06/2010	05/2011	\$7,500
SEED – Individual Grant	PI	06/2009	05/2010	\$7,500
SEED – Team Grant	PI	06/2009	05/2010	\$15,000
Seed - Strategic International Partnership	PI	09/2012	08/2013	\$3,500

Aid to Research Related Events, Publication and Dissemination	PI	06/2010	05/ 2011	\$5,000
Work-Study Program	PI	06/2010	05/2011	\$4,700
Work-Study Program	PI	06/2009	05/2010	\$12,600
FCAR	PI	06/1999	08/2001	\$36,000 (total)
McConnell Fellowship	PI	06/1999	08/2001	\$8,400 (total)
TOTAL				\$473,700

2.7 Training of Highly Qualified Personnel (HQP)

I have been able to attract very good Canadian and international students. Since 2002, I have supervised 1 post-doctoral fellow, and graduated 7 Ph.D. students, 19 Master's students in the Thesis option, and 10 Master's students in the Major Report option (not listed below). Please note that the Major Report option is no longer offered to CSE graduate students (a Major Report had been worth 15 credits).

Student Name (status)	Program	sole supervision / Co-supervisor's name	Start Date	End Date	Thesis Title	Current Position (PhD students only)
Doctoral Students						
Nasrin Baratali (in program)	PhD	Dr Suen	09/18	...	Big Data Quality Modeling and Management	student
Alaa Alsaig (in program)	PhD	V. Alagar	01/17	...	Big Data Management & Analysis	student
Ming Zhu (graduated)	PhD	P. Grogono	09/11	09/16	A Categorical Framework for the Development of Concurrent Systems with Process-Oriented Languages	Assistant Professor College of Computer Science & Technology Shandong University of Technology Zibo, Shandong, China http://users.encs.concordia.ca/~zhu_ming/
Mandana Omidbakhsh (graduated)	PhD	sole	04/14	09/16	A Methodology for Confidence-based Adaptive Numeracy Skill Assessment in Healthcare	Post-Doc, Concordia University

Reem Alnanih (graduated)	PhD	T. Radhakrishnan	9/09	04/15	CON-INFO: A Context-based Methodology for Designing and Assessing the Quality of Adaptable MUIs in Healthcare Applications	Assistant professor at the Faculty of Computing and Information Technology - Department of Computer Science, King Abdelaziz University, Jeddah, Saudi Arabia
H M Ishrar Hussain (graduated)	PhD	L. Kosseim	9/07	9/14	Linguistic Approaches for early Measurement of Functional Size from Software Requirements	Senior NLP Architect at SAP Labs LLC Post-Doctoral Fellow at Massachusetts Institute of Technology
Heng Kuang (graduated)	PhD	J. Bentahar	1/06	9/13	Towards a Formal Reactive Autonomic Systems Framework using Category Theory	IBM Toronto Research Laboratory, Canada
Mohamad Kassab (graduated)	PhD	M. Daneva, University of Twente	09/05	09/09	Formal and Quantitative Approach to Non-Functional Requirements Modeling and Assessment in Software Engineering	Assistant professor at the Pennsylvania State University, USA.
Manar Abu-Talib (graduated)	PhD	Dr. Alain Abran, ETS	05/03	04/07	Exploratory Study on an Innovative Use of COSMIC-FFP for Early Quality Assessment	Assistant professor at the College of Information Technology, Zayed University, Abu Dhabi - UAE
Master's Thesis Option Students						
John Sekeres (in program)	MA Sc	Dr. Suen		05/18	...	Novel Tool for identifying networks of predators in social media
Nikhalesh Patel (graduated)	MA Sc	Dr.Pitula		09/17	03/19	UTAUT-QiU: Technology Acceptance Evaluation Model with Integrated Quality-in-use for Mobile User Interfaces adapted for Low and Post-literate users
Dan Liu (graduated)	MA Sc	Dr. Suen		05/16	04/18	Identifying Cyber Predators by Using Sentiment Analysis and Recurrent Neural Network
Muhammad Nsr Khan (graduated)	MA Sc	Dr.Pitula		05/15	09/16	Mobile Viewing and Self-Management of Patient's Electronic Health Records (EHRs) with MyHealthCloud

Mohammadrez a Ebrahimi (graduated)	MA Sc	Dr. Suen	09/14	04/16	Automatic Identification of Online Predators in Chat Logs by Anomaly Detection and Deep Learning
Daphne Foldes (graduated)	MA Sc	Dr. Pitula	01/14	09/15	Using Tag Clouds as a Tool for Patients' Medical History Visualization and Record Retrieval
Abderahman Rashwan (graduated)	MA Sc	R. Witte	04/11	04/14	Automated Quality Assurance of Nonfunctional Requirements for Testability
Rolan Abdukalykov (graduated)	MA Sc	Sole	1/09	09/11	A New methodology for Quantifying the Impact of non-functional Requirements on Software Effort Estimation
Shadi Moradi Seresht (graduated)	MA Sc	sole	05/06	09/08	A Methodology for Semi-Automatic Assistance in Elicitation and Analysis of
Noorulain Khurshid (graduated)	MA Sc	S. Klasa	1/08	09/11	Towards Specifying Swarm-based Systems using Categorical Modeling Language: A Case Study
Jinzi Huang (graduated)	MA Sc	J. Bentahar	9/09	09/11	Modeling Multi-Agent Systems with Category Theory
Nassir Shafiei Dizaji (graduated)	MA Sc	J. Bentahar	9/09	09/11	Towards Specifying Swarm-based Systems using Categorical Modeling Language: A Case Study
Javier Quiroz (graduated)	MA Sc	sole	01/05	09/07	Automatic Generation of Behavioral Specification in Autonomic Reactive Systems
H M Ishrar Hussain (graduated)	MA Sc	Dr. Kosseim	09/04	09/07	Using text classification system to automate ambiguity detection in SRS documents.
Heng Kuang (graduated)	MA Sc	sole	09/04	09/07	Architecture for Autonomic Systems: AS-TRM approach
Mohamad Kassab (graduated)	MA Sc	sole	05/03	09/05	Methodology for Modeling and Measuring Aspects
Mubarak Sami Mohamad (graduated)	MA Sc	Dr. Alagar	05/02	09/04	Graphical Simulation of Real-Time Reactive Systems
Jian Shen (graduated)	MA Sc	Dr. Alagar	05/02	09/04	Scenario-Based Performance Assessment of Real-Time Reactive Systems
Shi Hui Liu (graduated)	MA Sc	Dr. Alagar	09/01	09/03	Simulated Validation of Real-Time Reactive Systems