How to Publish High-Quality Papers in Top Journals

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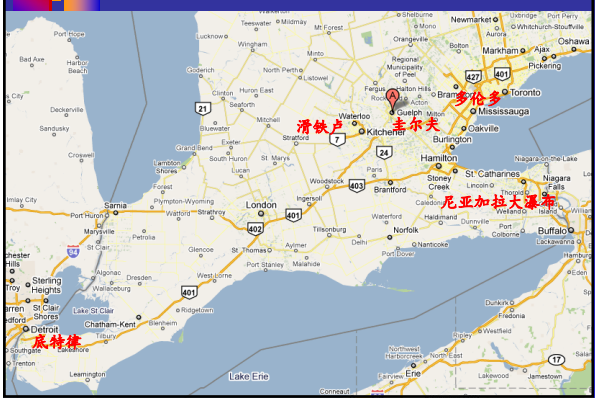
Population: About 100,000



University of Guelph

Ontario Agriculture College (OAC): About 150 years;

University of Guelph: About 50 years

About 18,000 undergraduate students, and 2,000 graduate students

My Background

- **My Background**
  - B.Sc.: Engineering Physics, Peking University
  - M.Sc.: Biophysics, Chinese Academy of Sciences
  - M.Sc.: Electrical Engineering, University of Houston, USA
  - Ph.D.: Electrical and Computer Engineering, University of Alberta, Canada
- **Our Research**
  - Modeling and analysis of various biological, agriculture and other natural systems
  - Biologically inspired intelligent systems approaches to various Engineering systems

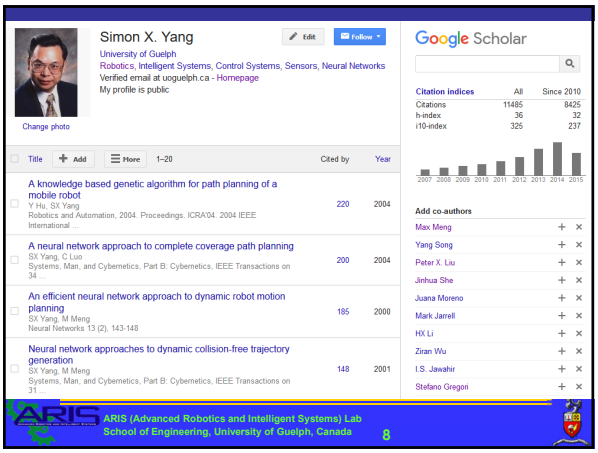
Editors of Many Journals

- Editor-in-Chief: *International Journal of Robotics and Automation*, Since June 2016
- Editor-in-Chief: *Journal of Robotics and Artificial Intelligence, since June 2012*
- Editor-in-Chief: *International Journal of Complex Systems – Computing, Sensing and Control, since Nov. 2013*
- Associate Editor: *IEEE Transactions on Cybernetics*, since July 2006
- Associate Editor: *IEEE Transactions on Neural Networks*, July 2007-Dec. 2010
- Editor: *Journal of Robotics*, since 2008
- Associate Editor: *Journal of Intelligence Control and Systems*, since June 2006
- Associate Editor: *International Journal of Computational Intelligence and Applications*, since Jan. 2006
- Guest Editor of many special issues for several journals

Editor-in-Chief	*International Journal of Robotics and Automation*, since June 2015
Editor-in-Chief	*Journal of Robotics and Artificial Intelligence*, since June 2012
Editor-in-Chief	*International Journal of Complex Systems - Computing, Sensing and Control* , since Jan 2013
Associate Editor	*IEEE Transactions on Systems, Man, and Cybernetics, Part B*, since July 2006
Associate Editor	*IEEE Transactions on Neural Networks*, Oct. 2007 to Dec. 2010
Associate Editor	*International Journal of Robotics and Automation*, since July 2006
Associate Editor	*Control and Intelligent Systems, since June 2006*
Technical Editor	*International Journal of Information Acquisition*, since Dec. 2003
Advisory Editorial Board	*Intelligent Automation and Soft Computing*, since Jan. 2013
Advisory Editorial Board	*Journal of Intelligent Learning Systems and Applications*, since Sept. 2010
Editorial Board	*Sensors*, since Oct. 2015
Editorial Board	*International Journal of Computational Intelligence and Applications*, since Jan. 2006
Editorial Board	*International Journal of Automation and Systems Engineering*, since April 2007
Editorial Board	*Journal of Robotics*, since Jan. 2008
Editorial Board	*International Journal of Computing and Information Technology*, since Jan. 2009
Guest Editor	Special issue on "Sensors for Agriculture" of *Sensors*, to be published in 2016
Lead Guest Editor	Special issue on "Theory and Applications of Bioinspired Neural Intelligence for Robotics and Control" of *Computational Intelligence and Neuroscience*, to be published in 2016

Publications

- About 200 journal papers, over 150 are in SCI index
- About 40 papers in IEEE Transactions (NN, FZ, IE, SMC B, SMC C, etc)
- About 250 conference papers, over 300 papers in EI index (including papers also in SCI)
- Over 10 edited books; 20 book chapters



How to Select a Research Topic

- Theoretical Investigation
  - Select a topic you are interested and able to do it
  - Literature survey of existing works – their advantages and limitations
  - Your proposed research methodology – different from existing one, either better or unique on something
- Practical Solutions
  - Find the best solution from all possible solutions
  - Provide sufficient justifications of your solution
  - Comparison studies to validate that your solution is the best choice

Procedures of Paper Submission

- Journal Secretary
  - Reasonably good in terms for format
  - Plagiarism checking (yes, if <30%; no, >35%)
- EIC (Editor-in-Chief)
  - Quickly go through if it is in the scopes (references), if has enough contributions, etc; if no, reject
  - If yes, select an AE (Associate Editor) from AE list to handle the paper

Procedures of Paper Submission

- AE (Associate Editor)
  - Do the same things as EIC, if no, reject
  - If yes, select reviewers from database, or from the people he knows; normally select 5-10 reviewers
  - Authors suggested preferred reviewers, mostly not useful for good journals; but useful for not good journals
  - Make recommendations based on the reviewers' comments – may ignore reviews not reasonable
- EIC (Editor-in-Chief)
  - Make final decision based AE's recommendation, may ignore AE's recommendation

Paper Types

- Letters
  - Report novel discovery and significant new findings
- Regular Papers
  - Significant contributions
- Short Papers
  - Not so significant contributions but with some great values
  - Continued contribution of published work
- Survey Papers
  - Comprehensive literature survey of the state-of-the-art on a research popular topic

Facts of good papers

- Originality
  - Develop something not existed
- Novelty
  - Develop new knowledge/techniques/applications
- Contributions
  - Develop additional information/knowledge
- Presentation
  - Is easy to understand/follow; but not too simple
  - Benefit readers

Paper Writing

- Essentially important!
- The reviewers have to understand and appreciate the research work
- Papers with outstanding research results but poor presentation mostly are not publishable
- Organization: logical and reasonable; not just English presentation issue!

Paper Writing

- Engineering papers: highly different from Science and Math papers
- Academic Contributions: repeating others' work has NO contribution
- Justifications of contributions: Comparative study (qualitative and quantitative); Analysis (stability, parameter sensitivity; limitation, applicability, future directions, etc)

How to Write Good Papers

- Title
  - Must be informative: not too general; not too specific/narrow; not too long
- Abstract
  - Every sentence must be useful
  - Summary every important aspects of the originality, novelty and contributions of the paper, and the uniqueness of your approach
  - Not too long; not too short (~300 words)
- Keywords
  - Not too specific; not too general; it depends!

How to Write Good Papers

- Introduction
  - Clear statement of the problem
  - Sufficient, comprehensive literature survey on the state-of-the-art on the studied topic and related: (1) other solutions of the problem; (2) the main features/applications of your techniques
  - Clear description the justifications of the proposed approach

How to Write Good Papers

- The proposed approach/work
  - Sufficient background information, but not too much to dilute your proposed work (point to literature or use appendix if needed)
  - Sufficient details and explanation of the proposed work
  - Should be general, as much as possible; avoid method can solve a specific problem, lack in generalization and extension

How to Write Good Papers

- Results – most important
  - Provide sufficient details on the experiments: experimental setup; parameters; assumptions; etc
  - More figures and tables!!
  - Figures: must explain the significance of each figure, not just say "the result is shown in Fig. *"; point out the significance of the figure.
  - Figure caption: must be self contained – no need to read the paper to know the figure
  - Tables: same as Figures

How to Write Good Papers

- Discussions/Analysis
  - Optional, but essentially important if available
  - Comparison to existing methods
  - Analysis of the proposed method
- Conclusion
  - Not repeat with the abstract! in particularly on several sentences
- References
  - Cite the papers from your submitted journal, for higher Impact Factor
  - Updated references, in the past 2-3 years, most have references from last 5 years

How to Write Good Papers

- Appendix
  - Useful, but not suitable in the main text
  - Detailed algorithms or proofs of your method
  - Summary of others' works/algorithms

Thank You!