

CURRICULUM VITAE

Witold PEDRYCZ

1. Personal information

Address (Work): Department of Electrical and Computer Engineering
University of Alberta, Edmonton, Canada

2. Education

| University | Degree | Year Granted |
|---|-----------------------|--------------|
| Silesian Technical University, Gliwice, Poland | D. Sc. (habilitation) | 1984 |
| Silesian Technical University, Gliwice, Poland | PhD. | 1980 |
| Silesian Technical University, Gliwice, Poland | MSc.with honors | 1977 |

3. Positions held

| Date | Position and Institution |
|-------------|---|
| 2001- | Professor and Canada Research Chair (Tier I), Department of Electrical & Computer Engineering, University of Alberta |
| 2001-2004 | Professor and Chair, Department of Electrical & Computer, University of Alberta |
| 1998-2001 | Professor and Director (Computer Eng.), Department of Electrical & Computer, University of Alberta |
| 1990 - 1998 | Professor and Associate Chair (Computer Engineering), Department of Electrical and Computer Engineering, University of Manitoba |
| 1988 - 1990 | Associate Professor Associate Chair (Computer Engineering), Department of Electrical and |

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| | Computer Engineering, University of Manitoba |
| 1988 | Visiting Assistant Professor, Department of Electrical Engineering, University of Manitoba |
| 1985 - 1990 | Associate Professor, Department of Automatic Control and Computer Science, Silesian Technical University, Gliwice, Poland |
| 1982 - 1985 | Assistant Professor, Department of Automatic Control and Computer Science, Silesian Technical University, Gliwice, Poland |
| 1981 - 1982 | Postdoctoral Fellow, Department of Electrical Engineering, Department of Mathematics and Informatics, Delft university of Technology, Delft, the Netherlands |
| 1980 - 1981 | Assistant Professor, Department of Automatic Control and Computer Science, Silesian Technical University, Gliwice, Poland |
| 1977 - 1980 | Assistant, Department of Automatic Control and Computer Science, Silesian Technical University, Gliwice, Poland |

4. Leadership

Membership and functions

North American association for Fuzzy Information Processing (NAFIPS) - President Elect (2003), President, 2004 -2006, Past President 2006-

International Fuzzy System Association (IFSA)- President Elect (2003-2005), President 2005-2007, Past-President 2007-

1988 - The *Institute of Electronic and Electrical Engineers (IEEE)*, M-88, SM-94, Fellow - 1999;

Student Activities Chairman, Winnipeg Section, 1989- 1996

Winnipeg Section, vice-Chair, 1997, Chair, 1998

IEEE Neural Networks Technical Committee on Fuzzy Systems, 1995-1997

IEEE Distinguished Lecture Speaker, since 2006

Member of ADCOM – since 2005 (2 terms)

Member of the ICT panel of *NSERC Strategic Grants Committee*, 2002-2004.

2003- member, *Association of Professional Engineers and Geologists of Alberta* (APEGGA)

1989 – 2003 member, *Association of Professional Engineering of Manitoba* (APEM)

Canadian Engineering Accreditation Board (CEAB) – member, since 2002

Participated in numerous accreditation visits to engineering programs across Canada, and contributed to various international accreditation activities (equivalence visits).

5. Professional Service

Conferences

General Chair

NAFIPS –2004, Banff, Alberta, 27-30 June, 2004

Program Chair

2007 Int. Conf on Machine Learning and Cybernetics, August 19-22, 2007, Hong Kong

Programme Committee

Leading conferences in the area of fuzzy sets and Computational Intelligence including
IEEE Int. Conference on Fuzzy Systems, IEEE-FUZZ (held annually)
IEEE Congress on Computational Intelligence (held every 2 years)
IFSA Congress on Fuzzy Sets (held every 2 years)
NAFIPS conference (held annually)
and others

6. Reviewing Activities

IEEE Trans. on Systems, Man, and Cybernetics
IEEE Trans. on Pattern Analysis and Machine Intelligence
IEEE Trans. on Computers
IEEE Trans. on Fuzzy Systems
IEEE Trans. on Image Processing
IEEE Trans. on Robotics and Automation
IEEE Micro Magazine
IEEE Computer
IEEE Journal on Selected Areas of Communications
IEEE Trans. on Control Systems Technology
Electronics Letters
Fuzzy Sets and Systems
J. of Approximate Reasoning
Zentralblatt fr Mathematik
Mathematical Reviews
J. of Intelligent Manufacturing
Graphical Models and Image Processing
J. of Operations Research
J. of Uncertainty, Fuzziness and Knowledge-based Systems
J. of Computing and Information Technology

Book or book proposal reviews for *McGraw Hill, J. Wiley, Elsevier, Kluwer Academic Publishers, Artech Publishing House*.

Reviewer for several research agencies including *NSERC, Manitoba Medical Service Foundation*, Winnipeg, Manitoba, *National Science Foundation (NSF)*, USA, *Engineering and Physical Sciences Research Council (EPSRC)*, UK, *Hong Kong*

Research Council, and *Israel Science Foundation* (Israel), *Georgia National Foundation* (Georgia).

Seminars and invited talks

2007

Institute of Automation, Chinese Academy of Sciences, Beijing, China, April, 2007
Institute of Automation, Chinese Academy of Sciences, Shenyang, China, April, 2007
Dalian Institute of Technology, Dalian, China, April, 2007
Silesian University of Technology, Gliwice, Poland, May 2007

2005

Department of Computer Science, University of Bari and Department of Electrical Engineering, University of Technology, Bari, Italy March 2005
Department of Electrical Engineering, University of Pisa, Italy, April 2005
Department of Computer Science, *University of Salerno*, Salerno, Italy, March 2005
Department of Automation, *University of Campinas, UNICAMP*, Campinas, Brazil, April, 2005
Department of Electrical Engineering, *Pontifical University*, Minas Gerais, Brazil, May 2005
Department of Computational Intelligence, *Tokyo Institute of Technology*, Yokohama, Japan, November 2005
Department of Computing, *Hong Kong Polytechnic University, PolyU*, Hong Kong, November 2005
Department of Computer Science, *University of Colorado*, Denver, December 2005

2004

Department of Computer Science, *University of Bozen*, Italy, May 2004
Department of Computer Science, *University of Milan*, Milan, Italy, August 2004

2003

Department of Computer Science, *University of Atlantic Florida*, Boca Raton, USA, April 2003
Department of Computer Science, *University of Bozen*, Italy, August 2003
Department of Computing, *Nottingham Trent University*, Nottingham, UK, August 2003
Department of Computing, *Polytechnic University of Hong Kong*, Hong Kong, December 2003

2001

Department of Computing, *Nottingham Trent University*, Nottingham, UK, June, 2001
Tokyo Institute of Technology, Nagoya University and *Tokyo University*, May 1996
Department of Computing, *Nottingham Trent University*, Nottingham, UK, July, 2000
Department of Computer Science, *University of Salerno*, Italy, May, 2000

7. Editorial Boards of leading international journals

IEEE Computational Intelligence Magazine – member of Editorial Board, since 2006
Pattern Recognition Letters – Associate Editor, since 1982
IEEE Transactions on Fuzzy Systems – Associate Editor, since 1993
IEEE Trans. on Neural Networks- Associate Editor, 1991-1998, 2005-
IEEE Transactions on Systems, Man and Cybernetics, Associate Editor, since 1998
J. of Intelligent Manufacturing – Associate Editor, since 1991
Fuzzy Sets & Systems – Area Editor, 1998-2004, Associate Editor, since 2004
J. of Fuzzy Logic and Intelligent Systems (Korea) – member of Advisory Board, since 1998
Soft Computing Journal – Regional Editor, since 1996
Applied Mathematics and Computer Science – member of Editorial Board, since 1995
Journal of Advanced Computational Intelligence, member of Editorial Board, since 1998
Cognitive Processing – member of Editorial Board, since 2000
Journal of Approximate Reasoning - Associate Editor, since 2003
Fuzzy Optimization and Decision Making - member of Editorial Board, since 2002
Int. Journal of Image and Graphics –member of Editorial Board, since 2002
Journal of Intelligent and Fuzzy Systems (IOS Press) -Regional Editor, since 2004
Pattern Analysis and Applications - Associate Editor, since 2004.

8. Editor-in-Chief

IEEE Transactions on Systems, Man, and Cybernetics- part A, since January 2008
Information Sciences (Elsevier)- since December 2003
Editor of book series on *Control Theory and Applications*, Research Studies Press / J. Wiley- since November 2003

9. Editor or co-editor of special issues

2008

Special issue on Adaptive Learning in Autonomic Communication, *ACM TAAS*

Special issue on Dynamic Data Mining, *J of Applied Soft Computing*

2007

Special issue on Applications of Soft Computing to Software Engineering, *Journal of Soft Computing*

2006

Special issue on Bioinformatics, *Pattern Recognition*

2005

Special issue on Soft Computing Applications to CDMA Power Control Optimization, *Journal of Soft Computing*

2004

Special issue on Computational Intelligence and Software Engineering *Fuzzy Sets & Systems*

Special issue on Computational Intelligence in Telecommunications Networks and Internet Services, *IEEE Transactions on Systems, Man, and Cybernetics, part C*

10. Honors and awards

- ✓ *Fellow IEEE* (1999)
- ✓ *Fellow IFSA* (2005)
- ✓ *Fellow Engineering Institute of Canada EIC* (2008)
- ✓ *Canada Research Chair*, since July 2001
- ✓ *Visiting Professor*, Nottingham Trent University, Nottingham, UK, since 2001
- ✓ Listed in *Who is Who*, unsolicited input, Canadian edition, since 2003
- ✓ *IEEE Distinguished Lecture Speaker*, 2004
- ✓ *Japan Society for Promotion of Science (JSPS)* – Senior Fellow, 2005
- ✓ *K-S Fu NAFIPS Award*, 2006
- ✓ *N. Wiener Award, IEEE Systems Man and Cybernetics Society*, October, 2007
- ✓ *IEEE Canada Computer Engineering Silver Medal*, May 2008

11. Citation statistics

IEEE Explore <http://ieeexplore.ieee.org/search/pdfsearch.jsp> – full text search for “Pedrycz” returned 531 articles

Science Direct (Elsevier) – search for “Pedrycz” within full text returned 744 articles

Highly cited researcher on ISI HighlyCited.comSM

<http://hcr3.isiknowledge.com/author.cgi?&link1=Browse&link2=Results&id=2539>

[note: the browse results for ISI HighlyCited.comSM for the institution – University of Alberta returned 7 entries; there is only one in Engineering; the remaining six are in Computer Science, Pharmacology, Agriculture, and Ecology/Environment –with David W. Schindler

for details refer to

http://hcr3.isiknowledge.com/browse_author.pl?link1=Browse&link2=Results&value=University+of+Alberta&submit=INSTITUTION&page=0

ACM Portal <http://portal.acm.org/portal.cfm> – search for “ Pedrycz” in ACM Digital Library (the guide) returns 200 articles

CiteSeer.IST <http://citeseer.ist.psu.edu/> search for “Pedrycz” under “citations” returned 632 entries

12. Development of international collaboration

| <i>Institution</i> | <i>Principal researcher</i> | <i>Brief description of research activities</i> |
|--|-------------------------------------|--|
| Department of Computing Trent Nottingham University, UK | Prof. A. Bargiela | Granular computing as an emerging paradigm of intelligent systems. |
| Department of Mathematics, University of Naples and University of Salerno, Naples and Salerno, Italy | Prof. A. Di Nola, Prof. S. Sessa | Mathematical foundations of relational systems, fuzzy relational equations and their applications to system modeling |
| Dept of Computational | Prof. K. Hirota | Computational Intelligence with |

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|---|--------------------------------|--|
| Intelligence and systems Science, Tokyo Institute of Technology, Tokyo, Japan | | emphasis on autonomous robots, image processing and image understanding |
| Department of Electrical Engineering, University of Campinas, Campinas, Brazil | Prof. F. Gomide | Fuzzy modeling and control, fuzzy Petri nets |
| Department of Electrical Engineering and Electronics, Wonkwong University and Suwon University, Korea | Prof. S. K. Oh | Fuzzy modeling with emphasis on polynomial neural networks and their design with the use of Computational Intelligence |
| Systems Research Institute Polish Academy of Sciences, Warsaw, Poland | Prof. J. Kacprzyk | Data mining, WWW - based models of interaction, computing with words, linguistic modeling |
| Department of Computer Science, University of Salerno, Italy | Prof. V. Loia | Classification of WWW heterogeneous data |
| Department of Computer Science, University of Bozen, Bozen, Italy | Prof. G. Succi | Quantitative Software Engineering and Computational Intelligence |
| Institute of Biomedical Engineering, CNR, Padova, Italy | Prof. G. Bortolan | Pattern recognition in application to biomedical signal analysis |
| Department of Computing, Hong Kong Polytechnic University, Hong Kong | Prof. D. Zhang | Computational Intelligence in multimodal biometrics |
| Department of Computer Science, University of Milan, Milan, Italy | Prof. B. Apolloni | Formal models of learning of neural networks and their interpretability |
| Dalian University of Technology, Dalian, PR China | Prof. X. Liu | Axiomatic Fuzzy Sets Theory (AFS) and its applications |
| Chinese Academy of Science, Institute of Automation, Beijing and Shenyang, PR China | Prof. F.Y. Wang, Dr. D. Li | Granular Computing and fuzzy modeling with a particular focus on cell-based fuzzy models |
| Warsaw University, Department of Mathematics and Computer Science, Warsaw, Poland | Prof. A. Skowron | Rough sets and hybrid models of rough and fuzzy sets |
| Waseda University, Japan | Prof. J. Watada | DNA computing and optimization, Computational Intelligence |
| Tijuana Institute of Technology, Mexico | Prof. O. Castillo and Prof. P. | Type-2 fuzzy sets and their applications |

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13. Training and Supervisory Experience

Graduate students

| | | |
|----------------|------|------------|
| S. Iliskovic | PhD | 1997 -2001 |
| X. Bai | MSc | 1998- 2001 |
| L. Ramirez | MSc | 1998- 2001 |
| S. Djokic | MSc | 2000- 2003 |
| S.Rae | MSc | 1999- 2003 |
| M. Rodriguez | MSc | 2001- 2004 |
| A. Breuer | MSc | 2000- 2003 |
| J. Wen | MSc | 2001- 2003 |
| G. Karnik | MSc | 2000- 2003 |
| J. Alvarado | MSc | 2000- 2003 |
| A.Medin | MSc | 2000- 2003 |
| Z. Li | MSc | 2001- 2003 |
| P.Brzeminski | MSc | 2003-2005 |
| L.Chen | MSc | 2003-2006 |
| D.Whitley | PhD | 1999-2006 |
| L.Kuwen | MSc | 2003-2006 |
| E.Yang | MEng | 2003-2005 |
| A. Gobi | MSc | 2003-2005 |
| A. Farhagfar | MSc | 2002-2004 |
| M. Parnaprajna | MSc | 2002-2005 |
| J. Alvarado | PhD | 2003-2007 |
| T.Kaczmarzyk | MSc | 2005-2007 |
| T.Le | MSc | 2005-2007 |
| R. Chapman | PhD | 2000- |
| K.Li | PhD | 2005- |
| X. Li | PhD | 2003- |
| P.Rai | PhD | 2003- |
| W.Stach | PhD | 2003- |
| D.Graves | PhD | 2006- |
| A. Horthong | MSc | 2007- |

International MSc and PhD students

| | | |
|---------------|---|------|
| A. Staiano | Summer PhD Student (Univ of Salerno, Italy) | 2001 |
| A. Ciaramella | Summer PhD Student (Univ of Salerno, Italy) | 2001 |
| I. Glockner | Visiting international PhD | 2000 |

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|---------------|--|------------|
| | student (Germany) | |
| T. Gacek | Summer MSc student(Silesian University of Technology, Gliwice, Poland) | 2003 |
| A. Ciaramello | Summer PhD Student (Univ of Salerno, Italy) | 2003 |
| A. Dorado | International PhD student (Queen Mary, University of London, UK) | 2003 |
| R. Moser | Summer PhD student (Univ. of Bozen, Italy) | 2006, 2007 |
| A. Amato | Summer PhD student (Univ. of Bari, Italy) | 2006 |
| M. Cimino | Summer PhD student (Univ. of Pisa) | 2006 |
| D. Medeiros | Summer PhD student (Univ. of Sao Paulo, Sao Paulo) | 2007 |

Postdoctoral Fellows and Research fellows

| | | |
|---------------|----------------------|-----------------|
| W. Dunwei | Research scholar | 2003-2004 |
| Y. Zhu | Research scholar | 2004-2005 |
| Z. Feng | Research scholar | 2003-2004 |
| F. Yu | Research Scholar | 2002-2003 |
| A. Bouchachia | Post Doctoral Fellow | 2001-2002 |
| H. Nobuhara | Post Doctoral Fellow | 2002-2003 |
| S. Han | Research Scholar | 2003-2004 |
| D. Li | Post Doctoral Fellow | 2002-2003 |
| K.C. Kwak | Post Doctoral Fellow | 2003-2005 |
| A. Ciaramella | Post Doctoral Fellow | June –July 2004 |
| M.G. Chun | PostDoctoral Fellow | 2001-2002 |
| D.J. Lee | PostDoctoral Fellow | 2005-2006 |
| K.C. Kwak | PostDoctoral Fellow | 2004-2006 |
| B.J. Park | PostDoctoral Fellow | 2007- |