Reneta P. Barneva

Curriculum Vitae

Department of Computer and Information Sciences
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Educational Background

1990 Ph.D. Degree in Computer Science
University of Sofia "St. Kliment Ohridski", Bulgaria
Thesis: "*Application of Graphical Tools in Programming*"

1984 M.S. Degree in Computer Science
University of Sofia "St. Kliment Ohridski", Bulgaria
Thesis: "*Computer Animation*"

Full Time Academic/Visiting Appointments

September 2010 – Present, *Chair*
September 2004 – Present, *Professor*
September 2001 – September 2004, *Associate Professor*
Department of Computer and Information Sciences
(Formerly Department of Mathematics and Computer Science;
Department of Computer Science)
SUNY Fredonia

September 1998 – July 2001, *Associate Professor*
February 1998 – September 1998, *Assistant Professor*
Department of Applied Mathematics and Computer Science
Eastern Mediterranean University, Famagusta, TRNC

February 1998, *Associate Professor*
August 1988 – February 1998, *Assistant Professor*
Department of Computer Science,
University of Mining and Geology, Sofia, Bulgaria

April 1997 – February 1998, *Guest scientist*
University of Padua, Padua, Italy
Funded by the University of Padua

May 1996 - July 1996, *Guest professor*
University of Strasbourg "Louis Pasteur", Strasbourg, France
Funded by the University of Strasbourg "Louis Pasteur"

September 1993 – November 1993, *Guest scientist*
Istituto di Elaborazione della Informazione

of the Italian National Research Council, Pisa, Italy
Funded by the Program COST of the European Community

October 1991 – November 1991, *Guest scientist*
Istituto di Elaborazione della Informazione
of the Italian National Research Council, Pisa, Italy
Funded by the Italian National Research Council

October 1989 – April 1990, *Guest scientist*
International Laboratory of Artificial Intelligence
Institute of Technical Cybernetics,
Slovak Academy of Sciences, Bratislava, Slovakia
Funded by the Slovak Academy of Sciences

Awards

- SUNY Chancellor's Award for Excellence in Scholarship and Creative Activities, 2007
  The award is conferred to acknowledge and provide system-wide recognition for consistently superior professional achievement and to encourage the ongoing pursuit of excellence. Individuals selected for this tribute are the SUNY community's role models. The award supports the pursuits foundational to sustaining the intellectual growth of SUNY institutions by recognizing consistently outstanding scholarly and creative productivity conducted in addition to teaching, by SUNY's instructional faculty.

- Wilkes Award of the British Computer Society, 2006
  The award is given to the best paper published in a volume of The Computer Journal (Oxford). It is awarded each year to the author or authors of one paper appearing in the previous volume (year). In 2005 about 60 papers were published in the volume.

- Kasling Memorial Lecturer Award, April 2005
  It is given for over 30 years to SUNY Fredonia faculty. One award is assigned annually to an individual whose scholarly excellence has enhanced the reputation of the university. The winner is invited to present a lecture to the campus.

Research Interests

Imaging sciences, discrete geometry, multimedia, algorithms, computational biology

Projects and Grants

- ***Space-efficient algorithms in image processing: Paradigms and Prototypes. (2012-2013)***
  Project Leader (¥ 850,000, approx. $8500)
  Shizuoka University, Japan, SUNY Fredonia, USA, SUNY Buffalo State College, USA, Universidad Autónoma de Madrid, Spain, Universidad Nacional de Educación a Distancia, Spain, Université de Savoie, France, Clermont-Ferrand University, France, McMaster University, Canada
  Funded by Research Institute of Electronics, Shizuoka University, Japan

- ***Space-efficient algorithms in image processing: Models and Algorithms. (2011-2012)***
  Project Leader (¥ 700,000, approx. $7000)
  Shizuoka University, Japan, SUNY Fredonia, USA, SUNY Buffalo State College, USA, Universidad Autónoma de Madrid, Spain, Universidad Nacional de Educación a Distancia, Spain, Université de Savoie, France, McMaster University, Canada
  Funded by Research Institute of Electronics, Shizuoka University, Japan

- ***Space-efficient algorithms in image processing: from Theoretical Models to Practical Implementation. (2010-2011)***
  Project Leader (¥ 1,000,000, approx. $10,000)
  Shizuoka University, Japan, SUNY Fredonia, USA, SUNY Buffalo State College, USA, Universidad Autónoma de Madrid, Spain, Universidad Nacional de Educación a Distancia, Spain, Université de Savoie, France, McMaster University, Canada
  Funded by Research Institute of Electronics, Shizuoka University, Japan

- ***Space-efficient algorithms in image processing: Theoretical Foundations and Implementation. (2009-2010)***
  Member (¥ 1,000,000, approx. $10,000)
  Shizuoka University, Japan, SUNY Fredonia, USA, SUNY Buffalo State College, USA, Universidad Autónoma de Madrid, Spain, Universidad Nacional de Educación a Distancia, Spain, Université de Savoie, France, McMaster University, Canada
  Funded by Research Institute of Electronics, Shizuoka University, Japan

- ***Space-efficient algorithms in image processing: Theory and Applications. (2008-2009)***
  Member (¥ 1,000,000, approx. $10,000)
  Shizuoka University, Japan, SUNY Fredonia, USA, SUNY Buffalo State College, USA, Universidad Autónoma de Madrid, Spain, Universidad Nacional de Educación a Distancia, Spain, Université de Savoie, France
  Funded by Research Institute of Electronics, Shizuoka University, Japan

- ***Training Science Faculty to Support Scholarly Work and Undergraduate Research with High Performance Computing Tools (2006-07)***
  SUNY Fredonia representative
  SUNY Buffalo State College, SUNY Fredonia, and SUNY Geneseo
  Funded by SUNY FACT COCID

- ***European Posters Collection – EPOC (1997-98)***
  Member
  The Art Library (Berlin), the Museum for Art and Industry (Hamburg), the Austrian National Library (Vienna), the University of Utrecht, and the University of Padua.
  Funded by the European Commission, Directorate-General X under the program RAPHAEL

- ***Applications of Artificial Intelligence Methods in the Humanities (1996-97)***
  Member
  MC-CNR (Pisa), CNUCE-CNR (Pisa), University of Marseilles (Marseilles), IMI-BAS (Sofia), and UMG (Sofia).
  Funded by UNESCO-ROSTE

- ***Applications of Computer Science Methods in Scientific Investigations (1996-99)***
  Member
  Funded by University "Louis Pasteur" (Strasbourg), University of Marseilles (Marseilles), University of Torino (Torino), CNUCE - CNR (Pisa), IMI – BAS (Sofia), and University of Mining and Geology (Sofia)

- ***Multimedia Medical Information Program Environment (1996-98)***
  Member
  IMI-BAS (Sofia), University of Mining and Geology.
  Funded by the Bulgarian National Research Foundation. Grant No I531/95
- ***Encoding of Biosystems and other Problems of Computational Biology (1995-97)***
  Member
  Funded by IMC-CNR (Pisa) and IMI-BAS (Sofia)
- ***Development of Computer Graphics Methods for 3D Rendering (1994-95)***
  Leader
  University of Mining and Geology (Sofia).
  Funded by the Research Sector of the University of Mining and Geology
- ***Development of a Graphical Library of Methods Used in Geology (1994-96)***
  Leader
  University of Mining and Geology (Sofia)
  Funded by the Research Sector of the University of Mining and Geology
- ***Software Development for Plotters IZOT 6413S (1990-92)***
  Member
  University of Mining and Geology (Sofia).
  Funded by the Research Sector of the University of Mining and Geology
- ***Intelligent Vision Systems (1989-90)***
  Member
  Institute of Technical Cybernetics
  Funded by the Institute of Technical Cybernetics, Slovak Academy of Sciences (Bratislava)
- ***Analysis and Development of Methods and Software for Programming Automation (1987-89)***
  Member
  IMI-BAS (Sofia).
  Funded by the Bulgarian National Research Foundation. Grant No 42/1987

Invited Presentations

- *Digital geometry and its applications*, Technical University of Brno, Czech Republic, 2011
- *Some problems of digital geometry*, Technical University of Brno, Czech Republic, 2011
- *Space and time efficient image information processing: computation of topological image invariants*, Research Institute of Electronics, Shizuoka University, Japan, 2011
- *How can a PhD add value to a career?* (invited panelist), IEEE Western New York Image Processing Workshop, Rochester Institute of Technology, Rochester, NY, 2011
- *Teaching and Learning in Computer and Information Sciences,* WNYRIC Technology Integration Forum, BOCES, Fredonia, NY, 2011
- *Promoting Pedagogical Approaches to Robust Learning* (invited panelist)*,* General education: where we are going?, SUNY Fredonia, Fredonia, NY, 2011
- *Cooperative research project: Space-efficient algorithms in image processing,* Research Institute of Electronics, Shizuoka University, Japan, 2010

- *Digital geometry for computer imagery,* Research Institute of Electronics, Shizuoka University, Japan, 2009
- *Theory of digital manifolds and its application to medical imaging, Keynote talk at VipIMAGE* – Thematic Conference on Computational Vision and Medical Image Processing, Porto, Portugal, 2007
- *High performance computing and bioinformatics*, SUNY COCID Conference Training Faculty to Support Scholarly Work & Undergraduate Research with (High Performance) Computing Tools, Buffalo, NY, 2007
- *Using Mathematics to create pictures*, Gifted Math Program, University at Buffalo, Buffalo, NY, 2007
- *Digital Geometry: Basic Definitions and Facts*, Digital Geometry Workshop, University of Messina, Italy, 2005
- *Digital Geometry: 2D Digital Lines, Digital Geometry Workshop*, University of Messina, Italy, 2005
- *Digital Geometry: Digital Planes and 3D Digital Lines*, Digital Geometry Workshop, University of Messina, Italy, 2005
- *Algorithms for Modeling Polyhedral Surfaces: Method of Projection*, Digital Geometry Workshop, University of Messina, Italy, 2005
- *Algorithms for Modeling Polyhedral Surfaces, Digital Geometry Workshop*, University of Messina, Italy, 2005
- *Fractal theory*, Fairmont State University, Fairmont, WV, 2004
- *Geometry for computer graphics*, Kettering University, Flint, MI, 2004
- *Discrete geometry for computer imagery*, IEEE Seminar Series, Eastern Mediterranean University, Famagusta, TRNC, 2000
- *The beauty of virtual visits*, IEEE Seminar Series, Eastern Mediterranean University, Famagusta, TRNC, 1998
- *Computer analysis of exon and intron sequences of beta-hemoglobin gene*, Workshop Artificial Intelligence and Humanities, UNESCO-BAS Cooperation Programme, Sozopol, Bulgaria, 1996
- *Polynomial subclasses of the linear Diophantine problem*, Université "Louis Pasteur", Strasbourg, France, 1996
- *Visual programming. Use of graphical denotations in programs*, Istituto di Elaborazione dell'Informazione of the Italian National Research Council, Pisa, Italy, 1991
- *Natural object representations by means of fractal theory*, Istituto di Elaborazione dell'Informazione of the Italian National Research Council, Pisa, Italy, 1991

For other presentations see Section "Abstracts and Posters" and "Peer Reviewed or Invited Conference Publications" of this CV.

Member of Editorial Boards

- Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization (Taylor & Francis Group; ISSN 2168-1163)

- International Journal for Computation Vision and Biomechanics (Serials Publishing; ISSN 0973-6778)
- International Journal of Imaging and Robotics (CESER Publications; ISSN 2231-525X)

Peer Referee for

Journals:

- The Computer Journal (Oxford)
- Pattern Recognition (Elsevier)
- Information Sciences (Elsevier)
- Journal on Image and Vision Computing (Elsevier)
- Theoretical Computer Science (Elsevier)
- IEEE Transactions of Pattern Analysis and Machine Intelligence
- Discrete Applied Mathematics (Elsevier)
- International Journal of Imaging Systems and Technology (Wiley)
- Electronic Letters on Computer Vision and Image Analysis (CVC)
- EURASIP Journal on Advances in Signal Processing
- International Journal for Computation Vision and Biomechanics (Serials Publishing)
- International Journal on Tomography and Statistics (ISDER)

Grant Proposals:

- University of Padua Research Programs, Italy
- Centre National de Recherche Scientifique (CNRS) - France

Conferences:

- IEEE International Conference on Computer and Information Technology (IEEE CIT)
- International Conference on Pattern Recognition (ICPR)
- International Conference on Humans and Computers
- Congress on Computer Applications and Computational Science
- Discrete Geometry for Computer Imagery (DGCI)
- International Symposium on Visual Computing (ISVC)
- International Workshop on Combinatorial Image Analysis (IWCIA)
- Thematic Conference on Computational Vision and Medical Image Processing (VipIMAGE)
- S3T Soft – Software, Services and Semantic Technologies
- European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS)

- International Conference on Imaging Theory and Applications (IMAGAPP)
- Consortium for Computing Sciences in Colleges – North East (CCSCNE)
- Information Technology and Programming
- International Conference on Advances in Infrastructure for Electronic Business (SSGRR)
- Spring Conference of the Union of Bulgarian Mathematicians "Mathematics and Education in Mathematics"

Books:

- "Advances in Computational Vision and Medical Image Processing" (Springer)

Reviewer for

- Mathematical Reviews of the AMS
- Computing Reviews of ACM
- Wiley Publishing House books
- Pearson books
- McGraw Hill books

Recent Conference Chairing, Organization, and Committee Participation

Leading Role at International Conferences:

- IWCIA'13, Brno, Czech Republic, **Program and Publication Chair**
- IWCIA'12, Austin, TX, November 2012, **Program and Publication Chair and Chair of the Organizing Committee**
- IWCIA'11, Madrid, Spain, **Program and Publication Chair**
- CompIMAGE'10, Buffalo-Niagara Falls, May 2010, **General Chair, Chair of Organizing Committee**
- IWCIA'09, Playa del Carmen, Mexico, November 2009, **Program Chair and Principal Organizer**
- IWCIA'08, Buffalo, April 2008, **Vice-chair, Chair of Organizing Committee**
- ISVC'08 International Symposium on Visual Computing, Special Track on "Discrete and Computational Geometry and their Applications to Visual Computing," Las Vegas, NV, **Special Track Chair**
- ISVC'06 International Symposium on Visual Computing, Special Track on "Discrete and Computational Geometry and their Applications to Visual Computing," Lake Tahoe, NV, **Special Track Chair**
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International Conferences – Committee Member:

- DGCI'13 Discrete Geometry for Computer Imagery, **Seville, Spain, Program Committee Member**
- CompIMAGE'12 International Symposium on Computational Modeling of Objects Represented in Images, **Rome, Italy, Scientific Committee Member**
- VISAPP'12 International Conference on Computer Vision Theory and Applications, **Rome, Italy, Program Committee Member**
- ISVC'12 International Symposium on Visual Computing, **Crete, Greece, Program Committee Member**
- IMAGAPP'11 International Conference on Imaging Theory and Applications, **Algarve, Portugal, Program Committee Member**
- IEEE CIT'11 International Conference on Computer and Information Technology, **Pafos, Cyprus, Program Committee Member**
- ISVC'11 International Symposium on Visual Computing, **Las Vegas, NV, Program Committee Member**
- DGCI'11 Discrete Geometry for Computer Imagery, **Nancy, France, Program Committee Member**
- ISVC'10 International Symposium on Visual Computing, **Las Vegas, NV, Program Committee Member**
- ISVC'10 International Symposium on Visual Computing, Special track on "Computational Bioimaging," **Las Vegas, NV, Special Track Committee Member**
- IMAGAPP'10 International Conference on Imaging Theory and Applications, **Angers, France, Program Committee Member**
- IEEE CIT'10 International Conference on Computer and Information Technology, **Bradford, UK, International Program Committee Member**
- ICPR'10 International Conference on Pattern Recognition, **Istanbul, Turkey, Technical Program Committee Member**
- CACS'10 Congress on Computer Applications and Computational Science, **Singapore, Technical Program Committee Member**
- S3T Soft – Software, Services and Semantic Technologies, 2009, **Sofia, Bulgaria, Program Committee Member**
- DGCI'09 Discrete Geometry for Computer Imagery, **Montreal, Canada, Program Committee Member**
- ISVC'09 International Symposium on Visual Computing, **Las Vegas, NV, Program Committee Member**
- ISVC'09 International Symposium on Visual Computing, Special Track on "Computational Bioimaging," **Las Vegas, NV, Special Track Program Committee Member**
- IMAGAPP'09 International Conference on Imaging Theory and Applications, **Lisbon, Portugal, Program Committee Member**

- VipIMAGE'09 Thematic Conference on Computational Vision and Medical Image Processing, **Porto, Portugal, Scientific Committee Member**
- IEEE CIT'09 International Conference on Computer and Information Technology, **Xiamen, China, International Program Committee Member**
- ISVC'08 International Symposium on Visual Computing, Special Track on " Computational Bioimaging and Visualization," **Lake Tahoe, NV, Special Track Program Committee Member**
- ISVC'08 International Symposium on Visual Computing, **Las Vegas, NV, Program Committee Member**
- DGCI'08 Discrete Geometry for Computer Imagery, **Lyon, France, Program Committee Member**
- IEEE CIT'08 International Conference on Computer and Information Technology, **Sydney, Australia, International Program Committee Member**
- EUROMEDIA'08, **Porto, Portugal, International Program Committee Member**
- VipIMAGE'07 Thematic Conference on Computational Vision and Medical Image Processing, **Porto, Portugal, Scientific Committee Member**
- ISVC'07 International Symposium on Visual Computing, **Lake Tahoe, NV, Program Committee Member**
- IEEE CIT'07 International Conference on Computer and Information Technology, **Aizu, Japan, Program Committee Member**
- ISVC'06 International Symposium on Visual Computing, **Lake Tahoe, NV, Program Committee Member**
- DGCI'06 Discrete Geometry for Computer Imagery, **Szeged, Hungary, Program Committee Member**
- DGCI'05 Discrete Geometry for Computer Imagery, **Poitiers, France, Program Committee Member**
- DGW'05 Discrete Geometry Workshop, **Messina, Italy, Organizing Committee Member**

Regional Conferences – Committee Member:

- CCSCNE'12 Consortium for Computing Sciences in Colleges – North East, **Quinnipiac, CT, Reviewer**
- CCSCNE'11 Consortium for Computing Sciences in Colleges – North East, Western New England College, **Springfield, MA, Reviewer**

Post Docs and Visitors Hosted

- Dr. Mircea Nicolescu, University of Nevada at Reno, NV, September 2011
- Prof. Unal Ufuktepe, Izmir University of Economics, Turkey, September 2011
- Prof. Josef Slapal, Brno University of Technology, Czech Republic, August 2011

- Dr. Kostadin Koroutchev, Universidad Autonoma de Madrid, Spain, April 2011
- Dr. Damien Jamet, University of Nancy, France, December 2009
- Prof. Kamen Kanev, University of Shizuoka, April 2009, Sept. 2010, Aug. 2011, Oct. 2012
- Angelo Maimone, University of Messina, Italy, April-May 2007
- Dr. François de Vieilleville, University of Lyon, France, November 2007-June 2008
- Prof. Bruno Codenotti, CNR – Pisa, Italy, October 1998 and April 2000

Educational Activities

SUNY Fredonia (September 2001 – Present)

- **Undergraduate courses taught:**
  1. CSIT 499 Computer Science Project (3 credits)
  2. CSIT 497 Thesis (3 credits)
  3. CSIT 496 Seminar on Selected Topics (1 credit)
  4. CSIT 490 Special Topics (1 credit)
  5. CSIT 462 Computer Graphics (3 credits)
  6. CSIT 456 Information and Decision Support Systems (3 credits)
  7. CSIT 441 Analysis and Design of Algorithms (3 credits)
  8. CSIT 425 Software Engineering (3 credits)
  9. HON 400 Honors Thesis (3 credits)
  10. CSIT 400 Independent Study (3 credits)
  11. CSIT 341 Data Structures (3 credits)
  12. CSIT 312 Computer Structures (3 credits)
  13. CSIT 311 Assembly Language and Computer Organization (3 credits)
  14. CSIT 300 Internship (1-12 credits)
  15. CSIT 251 Information Systems Structures (3 credits)
  16. CSIT 242 Discrete Mathematics for Computer Science II (3 credits)
  17. CSIT 241 Discrete Mathematics for Computer Science I (4 credits/3 credits)
  18. CSIT 224 Problem Solving Using Objects (3 credits)
  19. CSIT 221 Computer Science II (4 credits/3 credits)
  20. CSIT 121 Computer Science I (3 credits)
  21. CSIT 120 Computer Science Overview (3 credits)
  22. CSIT 100 Freshman Seminar (1 credit)
- **Graduate courses taught:**
  1. CSIT 580 Computational Biology (3 credits)
  2. INDS 691 Research (3 credits)
  3. INDS 690 Research (3 credits)
- **Graduate students theses co-advised:**
  1. Robert Olson. Master's thesis: *"A Cognitive Architecture for Intelligence Engineering"*, 2007
  2. Michael Mendez. Master's thesis: *"Free and Open Software for Small Business Environments"*, 2007

- **Undergraduate students theses advisor:**
  1. Samantha Foley. Honors Thesis: *"Tunnel Enumeration and Description"*, 2004
  2. Andrew Parker. Honors Thesis: "*Realistic 3D Modeling of Architectural Objects in OpenGL*", 2008
  3. Cem Sancak. Thesis: *"An Introduction to Bioinformatics through Dynamic Programming"*, 2012
  4. Zhuojun (Georgie) Fu. Honors Thesis: *"Methods for the Positioning Determination of Autonomous Agents"*, 2012

For additional research with undergraduate students see Section "Publications with Undergraduate Students" at the end of the CV.

Eastern Mediterranean University, Famagusta (February 1998- July 2001)

- **Undergraduate courses taught:**
  1. COMP 471 Computer Graphics (3 credits)
  2. COMP 432 Programming Languages (4 credits)
  3. COMP 336 Programming in Java (3 credits)
  4. COMP 286 Data Structures (4 credits)
  5. COMP 275 Object-Oriented Programming (3 credits)
  6. COMP 191 Introduction to Computers (3 credits)
  7. COMP 182 Introduction to Computer Science II (4 credits)
  8. COMP 181 Introduction to Computer Science I (4 credits)
  9. MATH 163 Discrete Mathematics (3 credits)
- **Graduate courses taught:**
  1. COMP 559 Software Development (3 credits)
  2. COMP 521 Selected Topics in Computer Science (Computer Graphics) (3 credits)
  3. IS 511 Object-Oriented Programming (3 credits)
  4. IS 512 Multimedia I (3 credits)
  5. IS 513 Multimedia II (3 credits)
  6. IS 514 Computer Graphics (3 credits)
- **Graduate students advised:**
  1. Huseyin Lort. Doctoral thesis. *"Algorithms for Generation of Discrete Convex Objects"*, 2001 (continued with another colleague, because I left the institution)
  2. Sevinc Sonmez. Master's thesis. *"A Survey of Arithmetic Discrete Geometry"*, 2000
  3. Yenal Ogmen. Master's thesis. *"Development of Authoring Tools for Distance Learning"*, 2000
  4. Nazime Tuncay. Master's thesis. *"Using Java in Distance Education"*, 2001 (continued with another colleague, because I left the institution)
- **Graduation Projects (equivalent of two-semester undergraduate theses)**
  1. Mahmut Fakioglu. *Using Flash to Prepare Web Pages*, 2001
  2. N. Ozlem Can. *Development of Supporting Web Materials for "Data Structure" Course*, 2001
  3. Huseyin Simsek. *Using Macromedia Director for Development of Multimedial Tools*, 2000
  4. Kanita Karaduzovic. *Distance Learning,* 2000

5. Erkan Muhtaroglu. *Development of Multimedia Presentation using Macromedia Director*, 1999
6. Yasemin Tas. *Development of Advanced Web Design*, 1999

University of Padua, Padua, Italy (April 1997- February 1998)

- **Graduate students co-advised:**
  1. Lino Fari. Master's thesis. *"Objects Management with Director 6.0"* (in Italian), 1998
  2. Andrea Alberti. Master's thesis. *"Development of Authoring Tools for Multimedial Visits on CD-ROM with Macromedia Director"* (in Italian), 1998

University of Mining and Geology, Sofia (September 1988 – July 1997)

- **Undergraduate courses taught:**
  1. Computer Graphics and Applications
  2. AutoCAD
  3. Fundamentals of Programming
  4. Programming Languages
  5. Applied Software Systems
- **Graduate courses taught:**
  1. Computer Graphics
  2. Artificial Intelligence
- **Graduate students advised/co-advised:**
  1. Galina Radolovska. Master's thesis. *"Development of a Data Base for the Needs of Mining Industry"* (in Bulgarian), 1997
  2. Bilyana Stoyanova. Ph.D. thesis. "Development of a conceptual model of a university information system, including methods for data protection" (in progress)

University of Sofia "St. Kliment Ohridski" (September 1984 – July 1987)

- **Undergraduate courses taught:**
  1. Fundamentals of Informatics

Miscellaneous Pedagogical Activities:

- Initiator and Director of the program *Pathways*: an enrichment program for middle school students with talent and interest in the mathematical sciences
- Committee member and referee for Ph.D. and master theses' defense
- Coordinator of the Dual Degree Program with Izmir University of Economics
- Development of Web Programming Minor (with others)
- Development of Statistics Minor (with others)
- Serving on the Advisory Board of the Geographic Information Systems Minor

- Supervised research projects of over 70 undergraduate students presented at Student Expositions or reported to committees
- Coaching the Computer Science Team at the 9th CCSCNE Student Contest
- Invited pedagogical talks given
- Coordinator of multiple-section courses
- Delivered specialized computer science courses to teachers and engineers
- Participation in the development of two master's programs – "Information Systems" at EMU and "Computer Science" at SUNY Fredonia (in progress)
- Development of new courses

Services

SUNY Fredonia

SUNY-wide:

- SUNY *Senator* (July 2009 – Present)
- *Diversity Committee*, Member (July 2011 – Present)
- *Programs and Awards Committee*, Member (July 2008 – June 2011)
- *Joint Committee on Articulation and Transfer – Subcommittee on Computer Science*, Member (September 2010 – Present)

University:

- Member of the *Executive Committee of the Senate* (July 2004 – June 2007, July 2009 – Present), **Chair** (July 2007 – June 2008)
- Member of the *Technology Incubator Faculty Advisory Committee* (February 2011 – Present)
- Member of the *Diversity Committee* (September 2011 – May 2012)
- Member of the *Critical Thinking Assessment Subcommittee* (October 2011 – July 2012)
- Member of the *Advocacy Committee Task Force* (February 2011 – May 2011)
- Member of the *Campus Governance Leader Task Force* (November 2010 – December 2010)
- Member of the *Awards and Recognitions Task Force* (February 2010 – May 2010)
- **Chair** of the *University Senate* (July 2007 – June 2008)
- **Vice-Chair** of the *University Senate* (March 2006 – June 2007)
- **Governance Officer** of the *University Senate* (July 2004 – June 2006)
- *Kasling Committee* - **Chair** (September 2005 – September 2006), Member (September 2006 – Present)
- **Chair** of the *Faculty and Professional Affairs Committee of the University Senate* (July 2006 – June 2007); **Vice Chair** (February 2006 – June 2006); Member (June 2004 – February 2006)

- Member of the *Planning & Budget Advisory Board for University Senate* (May 2003 – June 2010)
- **Mentor** in the Program "Connections" (September 2008 – May 2009)
- Member of *Calendar Committee* (April 2003 – June 2004)
- Member of *Affirmative Action Panel* (February 2002 – June 2004)
- Member of the *Committee for Establishing Exchange Program with Eastern Mediterranean University, North Cyprus* (January 2002 – June 2004)
- Advisor on web technologies of *Formz: SUNY Fredonia's online magazine for arts* (November 2002 – June 2003)

Department:

- **Coordinator** of ABET Accreditation (February 2011 – Present)
- **Chair/Coordinator** of *Internship Committee* (September 2010 – Present)
- **Chair** of *Student Outreach and Publication Committee* (September 2010 – Present)
- **Founder and Policy Developer** of *Teaching Awards* (October 2010)
- *Personnel Committee* (Member, September 2004 – Present; **Chair** 2011)
- **Chair** of *Student Welfare and Outreach Committee* (August 2010 – Present)
- **Chair** of *Computer Information Systems Curriculum Subcommittee* (September 2006 – June 2009)
- **Chair** of *Search Committee* (March 2005 – June 2006)
- **Chair** of *Graduate and New Programs Committee* (September 2005 – June 2010)
- Member of *Administrative Committee* (August 2004 – June 2009)
- Participation in the High School Contest (2007 – Present)
- Member of *Student Welfare and Outreach Committee* (August 2004 – June 2009)
- Member of *Computer Science Curriculum Development Committee* (September 2001 – June 2009)
- **Director** of *Pathways Program* (May 2003 – June 2004)
- Member of *Outreach Committee* (May 2003 – May 2004)
- Member of *Open House Committee* (October 2003 – May 2004)
- Preparing a *CD-ROM* about the Department of Mathematics and Computer Science (February 2002 – February 2005)
- *Co-Instructor of the computer science student team* (September 2002 – May 2003)
- Member of the *Scholarship Committee* (February 2002 – April 2002)
- Member of a *Committee for Adopting Java* as a basic programming language in computer science courses. (October 2001 – November 2001)
- **Chair** of *Master's Program Committee* (October 2001 – June 2005)

Eastern Mediterranean University, Famagusta

- Member of the *Computer Committee*, Department of Mathematics and Computer Science, Eastern Mediterranean University (1998-2001; 1998-1999 **Chair** of the Committee)
- Member of the *Undergraduate Course Curricula Development Committee*, Department of Mathematics and Computer Science, Eastern Mediterranean University (1999-2001)
- *Webmaster* of the Department of Mathematics and Computer Science

  http://brahms.emu.edu.tr/mathhome (1998-2001)
- Member of *Committee Establishing a Master's Program in Information Systems* (1998-2000)

University of Padua, Padua

- Webmaster of Multimedia Technology Laboratory http://freia.dei.unipd.it (1997-98)

University of Mining and Geology, Sofia

- *Instructor of the computer science student team* of the University of Mining and Geology (1984 and 1988-97)

Professional Affiliations

International Association for Pattern Recognition, Technical Committee on Discrete Geometry, *Member*, ***Vice-chair, November 2006-April 2009***

American Mathematical Society, *Member*

Consortium for Computing Sciences in Colleges, *Member*

Bulgarian Association "Development of Information Society," ***Founding Member***

Union of Automation and Informatics (Bulgarian National Member Organization of IFAC), *Member*

Union of Bulgarian Mathematicians, *Member*

Honors and Distinctions

- Appreciation Letter from the Rector of the University of Padua, Italy, 2011
- Certificate of Appreciation from the Director of the Research Institute of Electronics, Shizuoka University, Japan, 2011
- Appreciation Letter from SUNY Provost and Senior Vice Chancellor for Academic Affairs David Lavallee, 2010
- Appreciation Letter from the President of Buffalo State College, 2008
- Service certificate for 10-year of service to SUNY Fredonia, April 2011
- Service certificate for 5-year of service to SUNY Fredonia, April 2006
- Professional Development Award, UUP, October 2006
- Professional Development Award, UUP, November 2004

- Meritorious Salary Increase 2001-2011
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