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A.GENERAL:

RESEARCH AND TEACHING INTERESTS

Software Engineering, Storage technologies, Systems research, IT Strategy, Decision Making, Technology Management, Decision Support Systems, Artificial Intelligence, Healthcare Informatics, Systems Analysis, Systems Engineering, Control Systems. Telecommunications, Database Systems, IT Security, IT and computer literacy, Crisis Management, Research Methodology, Assessment of student learning, Online teaching.

EDUCATION

Doctor of Philosophy (Management and MIS), January 1986; University of National and World Economy, Sofia, Bulgaria, <http://www.unwe.acad.bg>; Thesis title: Improvement of the management of the container transportation system. Brief summary: The thesis was dealing with strategic management issues of building a national information system of container transportation in Bulgaria, N.B. independently evaluated by World Education Services, Inc, New York, date of report October 23, 2001, ref No. 409857/rkt.

M.Sc (Technical Cybernetics), 1978; Technical University of Brno, Czechoslovakia (Includes BSc in Electrical Engineering); Dissertation title: Optimal Control Systems According to the Quadratic Criterion.

WORK EXPERIENCE

Academic Experience

Since 08.2002 – Dept Business Administration, School of Education and Professional Studies, ECSU, Full Professor (since 08.2007), Tenured (since 08.2006), Coordinator BIS program(01/2004 -8.2010), Assoc. Professor in BIS (2002-2007).

1.2002- 6.2002 Montclair State University, School of Business, Visiting Associate Professor in MIS

1.2002-12.2002 University of Natal, Pietermaritzburg, Honorary Professor in MIS

03.1991-01.2002 University of Natal (PhD granting, now part of the University of Kwa Zulu Natal), Pietermaritzburg campus, Full Professor and Chair in MIS 10.1997-01.2002; Senior Lecturer, 1993-1997; Lecturer – 1991-1993.

03.1987-02.1991 University of Zimbabwe, Bulawayo branch, Zimbabwe, B Tech, Lecturer in Computer Studies.

Visiting positions during sabbatical leave

02.2009-04.2009 Visiting (Guest) Professor, Durban University of Technology, South Africa, delivering a series of seminars on postgraduate research and assisting faculty in developing postgraduate research proposals.

02.1999-06.1999 Visiting Associate Director (Research), Computer Studies Dept, ML Sultan Technikon Durban.

01.1995-06.1995 Visiting lecturer in IS at the University of Botswana.

Business and Research Experience

06.1981-02.1987 Center for Transport Cybernetics in Sofia, Bulgaria: systems analyst (till 1983); research fellow (1983-1987), Center research coordinator (1985-1987).

07.1978-06.1981 Center for Transport Cybernetics in Rousse, Bulgaria: Analyst programmer.

B. TEACHING ACTIVITY

B1. Courses taught

- at undergraduate level:

at ECSU: Systems Analysis and Design, Database Management, E-Structure and security, Seminar on IS and Business Strategies (capstone course including Storage technology), Business Information Systems and Web Technologies, Information Management, Healthcare Informatics, Crisis Management.

Prior to 2002: Software Engineering, Business Process Reengineering and ERP, Decision Support Systems, Advanced Database Theory, Problem Structuring Techniques, Research Methodology, IS Management.

- at postgraduate level:

at ECSU: Masters Program in Organizational Management: Systems Approaches to Management.

Elsewhere:

-*August 2005:* A week long summer doctoral short course on Decision Making and Systemic Problem Solving at the Faculty of Engineering and the Built Environment of the University of Johannesburg, South Africa and a two day course on problem solving and Information Systems, presented to lecturers, Durban University of Technology, South Africa.

-MBA Program, University of Natal, Pietermaritzburg: Systems thinking, MIS.

-Masters program in Environment and Development, University of Natal, Pietermaritzburg: Decision Making and Systems Modeling.

-Masters Program in Organizational Systems at the Leadership Center, University of Natal Durban: Management Information Systems; Soft Systems Methodology; Critical Systems Thinking.

B2. Postgraduate research supervision

-Member of a PhD dissertation committee at the Lawrence Institute of Technology (Michigan) in the area of IT Project Management at the corporate level .Defended October 2006.

- Member of a PhD dissertation committee in Software Engineering, Defended Nov 2006, at the School of Management of the Federal University of Rio Grande do Sul, Porto Alegre, Brazil.

-Currently co-supervisor (pro bono) of 3 Doctoral and 3 Masters projects at the IT dept of DUT Durban, S. Africa.

-Supervised 22MSc theses (of which 15 by research only and 7 for programs by research and coursework) and two PhD dissertations by research at the University of Natal, UNISA, the Durban University of Technology in South Africa and ECSU (two) in Information Systems, Information Technology, Management, Environment and Development, Systems Thinking.

External examiner of 15 M.Sc. and 8 PhD dissertations at: Potchefstroom Univ. for CHE, University of Cape Town, Durban Univ. of Technology, Cape University of Technology and UNISA, South Africa as well as at Linkoping University, Sweden (2008).

B4. Supervision of independent studies at undergraduate level and honors dissertations

At ECSU:

Supervised more than 19 independent study projects since 2003 and over 28 internships since 2004.

Prior to 2002:

Supervised two independent studies at Montclair State University in 2002.

Supervised 17 honors dissertations at the University of Natal, Pietermaritzburg.

B5. Curriculum development

2010: Initiated and lead the development of a new minor and certificate in Healthcare Informatics (first in CT).

2008: Revised the capstone course to focus on IT storage infrastructure incorporating materials from the academic alliance initiated by me between ECSU and EMC Corporation.

2008: Developed a first year program course on Holistic Crisis Management introducing systems thinking and the principles of crisis prevention and management.

2007:Co-developed a new course on Information Management and Restructured the BIS major.

2006: Developed (with J Schaller and A. Citurs) a revision of the BIS Management Minor;

2005: Developed a new Minor in Social Informatics and a course BIS364, Introduction to Social Informatics.

2005: Developed in cooperation with the School of Cont. Education a BIS Management concentration in the BGS

2004: Developed in cooperation with Prof J. St.Onge a Minor Program in BIS Management at ECSU.

2004: Developed a new course BIS462 Seminar in Health Care Informatics

2004: Developed a Certificate in BIS.

Prior to 2002:

2000: Developed new curriculum for the honors program in Information Systems (a South African postgraduate program between a masters and a bachelor's level), University of Natal

2000: Developed the lecture materials and a study manual for the MBA course in Information Systems for MANCOSA, Durban (with Prof G. Erwin)

1999-2000: Introduced the teaching of concepts of SAP R/3 and BPR/ERP at the University of Natal.
1998-1999: Participated in the development of the new MBA program at U. Natal Pietermaritzburg
1996-1997: Participated in the development of the Masters Program in Organizational Systems, University of Natal.
1996: Developed the curriculum of the Part-time Honors Program in Information Systems and Computer Science.

B6. Development of multimedia teaching tools and online courses

-A set of unified multimedia materials (combining recordings in Tegrity and Camtasia and other materials on a CD and materials in WebCT) were developed for three core BIS subjects during 2004-2006.
-Introduced hybrid and online teaching in four courses of the BIS program since 2005.

C: CREATIVE ACTIVITY OVERVIEW: As of May 2011, Dr. Petkov has over 110 refereed publications of which 34 are peer reviewed journal articles, 15 are peer reviewed book chapters, 2 are edited book volumes, 52 are peer reviewed conference proceeding's articles, while 8 are peer reviewed papers in corporate research journals. He has developed 10 editorial and book review or panel papers as well as more than 105 other conference presentations. Dr. Petkov's publications have been cited by May 2011 more than 182 times according to Google Scholar.

LIST OF PUBLICATIONS IN REFEREED JOURNALS:

- Petkov, D. The relevance of Ackoff's "Resurrecting the future of Operational Research" to information technology and systems thinking today, accepted for publication, *international Journal on Information Technology and the Systems Approach (IJITSA)*
- Petkov D. and Petkova O. On Design Science, MCDM and IT Outsourcing Decisions, *Journal of Information Systems Applied Research (JISAR)*, Vol.3, No 20, 2010.
- Lane, J-A., Petkov, D. and Mora M. Software Engineering and the Systems Approach: a Conversation with Barry Boehm, *International Journal on Information Technologies and the Systems Approach*, 2008, 1 (2), 99-103.
- Petkov, D., Petkova O, D'Onofrio M., Jarmoszko A. , 2008, Using scoring rubrics to assess student learning from projects in interrelated information systems courses, *Journal of Information Systems Education*, 19(2), 241-252. (special issue on IS education assessment).
- Petkov, D, Petkova O, Andrew T, Nepal T, On the process of combining soft systems methodologies and other approaches in systemic interventions, *Journal of Organizational Transformation and Social Change* (Intellect Books, UK), 5(3), 291-303. 2008.
- Petkova, O., Petkov, D. and D'Onofrio M., Interweaving Rubrics in Information Systems Program Assessments- Experiences from Action Research at Two Universities, *Journal of Issues in Informing Science and Information Technology (IISIT)*, Vol. 5, 2008, 423-432.
- Petkov, D., Edgar-Nevill, D., Madachy, R. and O'Connor, R., Information systems, software engineering and Systems thinking – challenges and opportunities, *International Journal on Information Technologies and the Systems Approach*, 2008, 1 (1), 62-78.
- Petkov D and Petkova O. The Work System Model as A Tool for Understanding the Problem in an Introductory IS Project, *Information Systems Education Journal*, Vol. 6 (21), 2008.
- Sewchurran, S., Petkov D , A Systemic Framework for Business Process Modeling Combining Soft Systems Methodology and UML , *Information Resources Management Journal*, 20(3), 46-62, July-September 2007.
- Petkov, D., Petkova, O., Andrew T. and Nepal T. Mixing Multiple Criteria Decision Making with Soft Systems Thinking Techniques for Decision Support in Complex Situations, *Decision Support Systems (Elsevier Science Publishers)*, Vol. 43 (2007), 1615-1629.
- Mora, M. Gelman, O, Forgionne, G. Petkov D and Cano, J. Integrating the fragmented pieces in IS research paradigms and frameworks – a systems approach, *Information Resource Management Journal*, 20(2), April –June 2007 , 1-22.
- Petkova, O., Petkov, D. and D'Onofrio, M.J., What lies beyond Virtual Community Informatics – expanding a research agenda, *Journal of Information Technology Theory and Applications (JITTA)*, Vol 8(1). 2006, 49-62.
- Petkov, D. and Petkova, O., Development of Scoring Rubrics for Projects as an Assessment Tool across an IS Program, *Journal on Issues in Informing Science and Information Technology (IISIT)*, Vol. 3, 2006, 499-509.

- Brown, E, Erwin C and Petkov D. On the Impact of Demographic Variables on Interpersonal and Organizational Trust, Competition Forum, the American Society for Competitiveness's Annual Research Volume, 4(1): 135-140, 2006.
- Michele, D., Petkov, D and Kleine, P., Post Implementation Review of an Introduction of WebCT, *Information Systems Education Journal*, Vol. 4 (16). 2006.
- Averweg, U., Erwin G. and Petkov D., Survey of executive information systems in well established organizations in Kwa-Zulu Natal, *South African Journal of Information Management*, Vol 7(1), 2005.
- Andrew T. and Petkov D. A Case Study on the Initial Enquiry Stage in a Framework for Improved Planning of Rural Telecommunications Infrastructure in Developing Countries, *International Journal on Technology Management*, (Inderscience Enterprises, Switzerland) Vol 31 (1/2), 2005, 64-78.
- Averweg U, Petkov D., Erwin G. And Moolman H. Impact of portal technologies on EIS implementations in organizations in Kwa Zulu Natal, *South African Journal of Information Management*, Vol 5(4), December 2003.
- Petkova O and Petkov D, Factors Affecting Software Development Productivity in an Outsourced IT Project, *Journal of Information Technologies Cases and Applications*, Vol5, No1, 2003, 5-22
- Petkova O and Petkov D., A Holistic Approach towards the Validation and Legitimization of Information Systems, *Kybernetes, The International Journal of Systems and Cybernetics*, Vol. 32, No 5-6, June 2003, 703-714.
- Andrew T.N and Petkov D., The Need for a Systems Thinking Approach to the Planning of Rural Telecommunications Infrastructure, *Telecommunications Policy*, (Pergamon-Elsevier Science Publishers) Vol 27, No 1, 2003, 75-93.
- Petkova O and Petkov D, On the validation and legitimization of an information system- some theoretical considerations and a case study. *South African Computer Journal*, 26, 2000, p138-144.
- Petkova O, Roode JD and Petkov D, A multiple perspectives evaluation of the factors affecting software development productivity in an outsourced IT project. *South African Computer Journal*, 26, 2000, 45-52.
- Wortmann, KL, Petkov D and E. Senior, Indexing in a Case-Based Reasoning System for Waste Management", *South African Computer Journal*, Issue 23, 72-84, 1999.
- Petkov D. And A. Gialerakis, On Some Applications of AHP as a Group Decision Support Tool in University Management, *Management Dynamics*, Vol 6, No 1, 1997.
- McCarney L, D. Petkov and R Ross, Modeling the relationships between factors affecting the marketing of upgrades for personal computers, *SA Journal of Business Management*, vol. 28 (1), 1997, 27-32.
- Petkov D. An approach for the standardization of policies for selection of computer hardware and software, *SA Computer Journal*, Vol 16, April 1996, 13-17.
- Petkov D. A model for the prioritization of factors affecting child survival, *Development Southern Africa*, Vol 12 No 6 1995, 815-822.
- Petkov, D., G.Finnie, V. Ram, A Comparison of Undergraduate Programs in Information Systems in Southern African and North American Universities, *South African Journal of Higher Education*, Vol 9, No.1 (1995), 116-121.
- Finnie, G., Wittig, G. Petkov D. Prioritizing Software Development Productivity Factors Using the Analytic Hierarchy Process, *The Journal of Systems and Software*, (Elsevier Science Publishers), August 1993, 129-139.
- Petkov, D., A Multicriteria Model for the Selection of Financial Planning Software, *Management Dynamics - Contemporary Research*, a journal of SAIMS, vol. 1, No.3, 63-72.
- Petkov, D., N.Penchev, G.Janev, N.Janev, Statistical Evaluation of the Consumption of Spare Parts in Road Transport, *Annual of the Center for Transport Cybernetics*, Sofia, 1986
- Petkov, D., Systems Analysis of the Management of the Container Transport System, *Annual of the Center for Transport Cybernetics*, Sofia, 1985.
- Vasilev, V. and D.Petkov, Some Aspects of the Information Requirements of the MIS for Tracking of Containers in Bulgaria, *Annual of the Institute for Transport Problems*, Vol. 9/2, Sofia 1982.

PUBLICATIONS IN REFEREED CHAPTERS OF BOOKS:

- Petkov, D., Petkova O., Sewchurran, K., Andrew T. and Misra, R. (2011) The work system method as an approach for teaching and researching information systems, in Dwivedi, Y.K, Wade, M.R. and Schneberger, S.L.(eds), *Information Systems Theory: Explaining and Predicting Our Digital Society*, Vol.2, ch.43, Springer, New York. (in press).

- Petkov, D., Edgar-Nevill, D., Madachy D., O'Connor, R. Towards a Wider Application of the Systems Approach in Information Systems and Software Engineering, in Paradice D. (Ed). *Emerging Systems approaches in Information Technologies: Concepts, Theories and Applications*, IGI Global, 67-85. 2009.
- Misra, R., Petkov, D. and Petkova, O. Research Directions on Incorporating Work System Method Ideas in Systems Analysis and Design, in Dwivedi, Y. K., Lal, B., Williams, M.D., Schneberger, S.L. & Wade M. (eds). *Handbook of Research on Contemporary Theoretical Models in Information Systems*, IGI Global, Hershey PA, 131-140, 2009.
- Faherty, G. , Petkov, D., Staron, R., Martin E. and France, M. A Case Study of Applying SSM in Community Revitalization, In (Goldstein, J., Hazy, J. K. and Silberstang, J.. *Complexity Science and Social Entrepreneurship: Adding social value through systems thinking*. Mansfield: ISCE Publishing. 175-190, 2009.
- Sewchurran, K and Petkov, D., Mixing Soft Systems Methodology and UML in Business Process Modeling, in Mehdi Khosrow-Pour (ed), *Best Practices and Conceptual Innovations in Information Resources Management: Utilizing Technologies to Enable Global Progression* IGI Global. 82-102. 2009
- Averweg U R, Erwin G and Petkov D., Impact of portal technologies on Executive Information Systems, in Mário Freire or Manuela Pereira (Eds), *Encyclopedia of Internet Technologies and Applications*, Idea Group Publishing, 2007, 215-221.
- Andrew T. and Petkov, D. Implementation of a Multimethodology Rural Telecommunications Planning Framework: Reflections on the Case Study and Some Lessons Learned, ISCE Publishing, Mansfield, MA. 2007.
- T. Nepal and D Petkov, An action research oriented systemic framework for the evaluation of rural telecommunications infrastructure in Richardson, K., Gregory W. and Midgley G. (Eds). *Systems Thinking and Complexity Science: Insights for Action*. ISCE Publishing, Mansfield, MA. 2006.
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- Petkova, O. and Petkov, D., On an Application of Critical Systems Heuristics in a Framework for Evaluation of Software Development Productivity, in G Ragsdell et.al. (Eds), *Systems Theory and Practice in the Knowledge Age*, Kluwer Academic Publishers/Plenum Press, New York, 2002 , 239-246.
- Zelger J, de Wet A G, Pothas A-M, and Petkov D, Conceptualization with GABEK: Ideas on Social Change in South Africa, in Zadeh, L.A. and Kacprzyk. J. (eds), *Computing with Words in Information/Intelligent Systems* Vol. 2, Springer Verlag, Berlin, 1999
- McEwan, T. and Petkov, D., A Pluralist Approach Towards the Integration of Quality and Environmental Management, leading to Sustainable Development, in A. Gregory (ed). *Synergy Matters: Working with Systems in the 21st Century*, Plenum Press, New York, 1999, 229-234.
- Petkov D and O Mihova-Petkova The Analytic Hierarchy Process and Systems Thinking, in Stewart T.J. and van der Honert R.C. (Eds), *Trends in Multicriteria Decision Making*, Lecture Notes in Mathematics and Mathematical Systems, Springer, Berlin, 1998, Vol 465, 243-252.
- Petkov, D., One Way to Propagate Management Policies in a Decentralized Decision Making Environment, in *Cybernetics and Systems*, (ed. R.Trappl), Vol.2, 1191-1198, World Scientific Publishing, Singapore, 1994.
- Petkov, D., An Interactive Approach for Investment Decision Making, in *Cybernetics and Systems*, (ed. R. Trappl), Vol 2, 1175-1183, World Scientific Publishing, Singapore, 1992.ISBN 981-02-1992-X

PUBLICATIONS OF EDITED BOOKS:

- Petkov D, T. McEwan, S. Zondi and D de Waal,(Eds). *Proceedings of the Ninth Conference of the SA Institute of Management Scientists*, A collection of refereed papers, ISBN 1-96840- 250-9,Pietermaritzburg 1997.
- Petkov D and Venter L. (Eds), *SAICSIT'98. Proceedings of the Annual Research and Development Symposium*, South African Institute for Computer Scientists and Information Technologists (SAICSIT) A collection of refereed papers. University of Natal Press, Cape Town, 23-24 November 1998, 272pp.

PANELS AND EDITORIAL ARTICLES OF SPECIAL JOURNAL ISSUES EDITED BY D PETKOV AND BOOK REVIEWS:

- Alter, S, Korpela, M, Petkov, D and Russo, N. Will Current Trends in Information System Development Lead to More Visible Usage of Socio-Technical Approaches?, *panel, IFIP WG 8.2 Conference*, Turku Finland, June 2011.

- Petkov, D. (panel chair), Alter S., Andrew, S., Nepal, T., Sewchurran, K, Brown, I., Systems Thinking enabling IT to empower – current research, *Panel discussion, European Conference in Information Systems*, University of Pretoria, South Africa, June 2010.
- Petkov D., Special Section Introduction , Special Section on papers from the Systems Track, ISONeWorld 2007, *Scientific Inquiry Journal*, Vol 9, No 1, June, 1-2.
- Mora, M. Gelman, O, Forgionne, G., Petkov D. and Cano, J. Information Systems research and the Systems Approach editorial, *Information Resource Management Journal*, 20(2), April-June, i-iv, 2007.
- Petkov, D., Urwin, G. Editorial on the special section on the Doctoral Symposium ISONeWorld 2005, in *IJCSS*, 2006 No2, 2.
- Petkov D. Book Review of Systems Thinking: Creative Holism for Managers by M C Jackson, *Journal of the Operational Research Society*, Palgrave, United Kingdom, Vol 56. 1342-1343. 2005..
- Petkov D. and Petkova O. Alternative Operations Research Approaches to Technical Problems, Editorial article for a special issue of the *International Journal on Problems of Non Linear Analysis in Engineering Systems*, (International Academy of Non-Linear Sciences, Kazan Aviation Institute), Vol 11(3),iii, 2005.
- Petkov, D. and Petkova, O. Editorial - Special issue on the ISONeWorld Doctoral Symposium, *International Journal of Computers, Systems and Signals*, ISSN 1608-5655, Volume 5, No.1. 1-2, 2004.
- Petkov, D. and Petkova, O. Soft Systems Approaches to Information and Communication Technology Problems, *International Journal of Computers, Systems and Signals*, ISSN 1608-5655, Vol. 4, No.1, 3-4, 2003.
- Petkov D, Book review of The Art of Strategic Planning for Information Technology by Bernard Boar., published in *Interfaces*, an INFORMS journal, January –February 1995, 139-141.

OTHER REFEREED PUBLICATIONS PUBLISHED IN CORPORATE JOURNALS OR MAGAZINES:

- Petkov D and O. Mihova-Petkova, A network model for the prioritization of factors affecting software development productivity, *Bulletin of the Intl Federation for Systems Research*, Vienna, Austria, December 1995.
- Petkov, D., A Multicriteria Decision Making System, *J.Transport and Cybernetics*, Sofia, 1989, No 4.
- Petkov, D.,G. Janev,N.Penchev,N.Janev.,Mathematical Models for the Statistical Evaluation of the Consumption of Spare Parts in Road Transportation, *J. Transport and Cybernetics*, Sofia, 1987, No.2
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- Petkov, D. A Model for the Assessment of the Information Requirements for the Management of the Container Transport System, *J.Transport and Cybernetics*, Sofia, 1985, No.4.
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- Petkov, D., Hierarchy of Objectives and Changes in Regulations Associated with the Development of MIS for the Container Transport System, *Journal of Transport and Cybernetics*, Sofia, 1982, No.1.
- Petkov, D., and O.Michova, A Research on the Dependence of the Basic Parameters of the Products in a Family on the Magnitude of the Main Utility Parameter, *Annual of the Technical University in Brno, Czechoslovakia*, vol.B, 1977.

PUBLICATIONS IN REFEREED CONFERENCE PROCEEDINGS:

- Petkov D. and Petkova O. , An Exploratory Study on the Student Acceptance of the Work System Method as Part of the Systems Analysis and Design Course, *Proceedings, ISECON*, Nashville, 2010.
- Petkov D. and Petkova O. On Design Science, MCDM and IT Outsourcing Decisions, *Proceedings CONISAR Conference Washington DC Nov 2009*.
- Nepal, T and Petkov D. Using a Group Support Systems In Strategic Academic Planning- a Field Experimental Study on the Influence of Facilitation, *Proceedings CONISAR Conference Washington DC Nov 2009*.
- Petkov, D., Petkova, O, Some Suggestions for Further Diffusion of Work System Method Ideas in Systems Analysis and Design, *CONISAR Proceedings*, Phoenix, November 2008.
- Petkov, D., Petkova, O, On Broadening Software Development Productivity Research To serve better Software Engineering Management, *International conference on Information Resources Management*, 2008, May, Niagara Falls, Canada.
- Petkov, D., Petkova, O, Jarmoszko A. and D’Onofrio, M. Using Scoring Rubrics To Assess Student Learning From Projects In Interrelated Information Systems’ Courses, *Proceedings of the pre-ICIS IAIM conference*, Montreal, December 2007.
- Petkov D., Reflections On Developing And Using Blended Courses In An IS Program, *ISECON 2007 Proceedings*, Pittsburgh, November 2007.

- Petkov, D., Systems thinking and Information Systems – some reflections on their relationship, *ISOneWorld 2007 Conference Proceedings*, April
- Andrew T. and Petkov, D. Implementation of a Multimethodology Rural Telecommunications Planning Framework: Reflections on the Case Study and Some Lessons Learned, *Proceedings of the 12th Australian-New Zealand Systems conference*, December 2006.
- Petkov D and Petkova O. The Work System Model As A Tool For Understanding The Problem In An Introductory Is Project, *ISECON 2006 Proceedings*, Dallas, November 2006.
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- Nepal T. and Petkov D. An action research oriented systemic framework for the evaluation of rural telecommunications infrastructure, *Proceedings 11th Australian-New Zealand Systems conference*, Christchurch, New Zealand 5-7 December 2005.
- Mhlabane, M, D. Petkov, T. Nepal, An investigation into performance testing for e-commerce web-based applications, *Proceedings 7th Annual Conference on World Wide Web Applications*, August 2006, Cape Town, <http://www.uj.ac.za/www2005/index.asp?page=detail&id=3035>.
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- Petkov D., Petkova O., Andrew T. and Nepal T. On the process of combining soft systems methodologies and other approaches in systemic interventions, *ISOneWorld Conference Refereed Proceedings*, March 30-April 1st 2005, The Information Institute.
- Kunene N, Petkov D., Reducing the animosity associated with high-polar group decision environments by reversing traditional procedures to emergent consensus building with the use of GSS embedded capacities (through the AHP and consensus indicators), *ISOneWorld Conference Refereed Proceedings*, March 30-April 1st 2005, The Information Institute.
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- Andrew, T and Petkov D. , A Case Study on the Initial Enquiry Stage in a Framework for Improved Planning of Rural Telecommunications Infrastructure, *ISOneWorld Conference*, Inf. Institute, Las Vegas, April 2003.

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- Nepal T and Petkov D, The Influence of Facilitation in a Group Decision Support Systems Environment, *SAICSIT Conference*, Pretoria 2001.
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- Huntley R, Petkov D, Archer D and Fincham R, Multi-criteria decision support for risk analysis in evaluating development initiatives: a sensitive coastal area case study in South Africa. *Eco Management and Auditing International Conference*, Manchester Business School, June 2000, p333-342.
- Huntley R, Petkov D, Archer D and Fincham R, Soft Systems Thinking and MCDM as tools and techniques to aid in the evaluation of development proposals. *Proceedings Eco Management and Auditing International Conference*, Manchester Business School, June 2000, p131-140.
- Andrew T and D Petkov, Planning and design of rural telecommunication infrastructure is planning for a sociotechnical system - some implications. *Proceedings SATNAC Conference 2000*, Cape Town, September 2000.
- Andrew T and D Petkov, Towards a Systems thinking Approach to the planning and design of rural telecommunications infrastructure. *Proceedings of World Congress of the Systems Sciences*, Allen J and Wilby J (eds) Toronto, July 2000.
- Andrew T and D Petkov, The need for a pluralistic approach to the planning and design of a rural telecommunications system. *Proceedings of Fourth World Multiconference on Systemics, Cybernetics and Informatics*, Callaos, N (ed), Orlando, USA, July 2000.
- Petkova, O. and Petkov D., On the validation of a systemic framework for pluralist models of complex problems based on Multimethodology, *Annual Conference of the Decision Sciences Institute*, New Orleans, 20-23 November, 1999.
- Petkov, D. and Petkova O., Making decisions in Information Technology Outsourcing, *Fifth International Conference of the Decision Sciences Institute*, Athens, Greece, July 1999 (invited paper).
- Petkov D and O Petkova, A Systemic Framework for the Analysis of Academic Computing, in Baic V.B.(ed), *Advances of Systems, Signals, Control and Computers*. IAAMSAAD and the SA branch of the Academy of Nonlinear Sciences, 1998, Vol III, 398-403
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- Petkov D. McEwan T., von Solms S., Vezjak M., Moving Towards Compliance with Standards for Environmental protection - an Example of Mixing Approaches to "Messy" Problems, *Proceedings of the Fourteenth European Meeting on Cybernetics and Systems Research*, Vienna, Austrian Society for Cybernetic

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- Petkov D. and O. Petkova. Towards a learning organization: a combination of reengineering and SSM, *Proceedings Fifth Interdisciplinary Information Management Talks IDIMT'97*, Zadorf, R Oldenburg Verlag, Wien-Munchen 1997 , pp 95-108.
- Schreuder, P., D. Petkov and L. Haines, Preference Assessment in AHP with Interval Judgments Using Neural Networks, Association for the Advancement of Modeling and Simulation Techniques in Enterprises (AMSE) International Pretoria Conference "*Intelligent Systems '94*", September 1994, ISBN2-909214-605.
- Petkov, D., J. Viloen, A Model of the Prioritization of Factors Related to CASE Tools Selection, *Second Int. Information Management Talks*, Kubova Hut, R. Oldenburg Verlag, Wien-Munchen, 1994, ISBN 3-70290394-1 .
- Petkov, D.,S.Savova,N.Penchev,V.Rachneva, P.Vladikov. A Two- Level System for Processing of Managerial Information in the National Road Transport Company, International Symposium on the Use of Personal Computers PERSCOMP'87, ITCR,Sofia,1987

INTERNATIONAL CONFERENCE PRESENTATIONS (not refereed):

- Petkov, D, Petkova, O. and Kunene, N. , Multicriteria Decision Making and Design Science Applied to Outsourcing Management, International MCDM Conference, Finland,, June 2011.
- Petkov, D., On the legacy of Russell Ackoff and its relevance for Systems Thinking and Social Entrepreneurship, Panel presentation at International Conference on Social Entrepreneurship, Systems Thinking, & Complexity, Adelphi University, April 2010.
- Petkov, D. and Petkova O. A multicriteria model for the selection of activities to outsource, Int Conf on the Analytic Hierarchy Process, Pittsburgh, July 2009.
- Steenkamp, A.L., Petkov, D.,Petkova O, Nepal, T. On a research Process Model and Supervision Aspects in Postgraduate Education in South Africa and North America, Intl Conf on Postgraduate Supervision, Univ. of Stellenbosch, SA, April 2009.
- Faherty, G., Petkov D, Staron, R, Martin E. and France M. A case of using SSM in community revitalization, International Conference on Complexity, Systems Thinking and Social Entrepreneurship, Adelphi University, April 2008.
- Petkov D. Integrating the Work System Method and Soft Systems Thinking in an Undergraduate IS Program , presented in a Panel on Systems Thinking, The Work System Method and Soft Systems Thinking in Information Systems, ISOneWorld 2007 Conf.
- .Petkov D and Petkova O, Developing rubrics for assessment in IS projects, *ISOneWorld Conference* , March 30-
- Petkov D and Petkova O. On the difficulties in practicing multimethodology research, International Symposium on Research Methods, (pre-ICIS2005), Las Vegas, 12.2005
- Petkova O, M D'Onofrio and Petkov D. Systems Thinking and Community Operations Research needed for better work in Community Informatics, ITIB Conference, St Petersburg, Russia, June 14-17 2005, organized by Linskoping University Sweden and St Petersburg State University
- Petkov, D. , Petkova O. and D'Onofrio, (2006). M., Moving beyond virtual community informatics, IFIP WG 8.2 OASIS Workshop Milwaukee , December 2006.April 1st 2005, Las Vegas
- Petkov D, Petkova O, T Andrew and T Nepal, Mixing methods in systemic interventions – a research agenda, presented at the Applying Systems Thinking, Information Systems, *Operations Research and Management to Social Problems*, A half-day workshop, Friday November 19th 2004, 1 to 6 pm, at Eastern Connecticut State University
- D Petkov, D DeTombe, S Brant, O Petkova, R Draman, H Linskog, G Hirsch, S Taylor, Why a combination of theories and insights coming from different disciplines are needed to explain Complex Societal Problems, Panel discussion at the *DSI Conference*, November 2004, Boston.
- Averweg, U., Petkov D. and Erwin G. Application of The Technology Acceptance Model to Executive Information Systems: A South African Study, *DSI Conference* November 2004 Boston. (non refereed paper)
- Petkov, D. , Averweg, U., Erwin G., Moolman, H., The Impact of Web Based Technologies on Executive Information Systems in South Africa : Some Exploratory Findings, *INFORMS Annual Meeting*, Atlanta, GA, October, 19-22, 2003.
- Averweg, U, Petkov D. and Moolman, H., Implementing ERP Software in a South African Municipality: The Post Implementation Stage, *INFORMS Annual Meeting*, Atlanta, GA, October, 19-22, 2003

- Petkov, D. and Petkova, O., "On Critical Systems Thinking and Critical Social Theory Applied To Information Systems Research", *International Symposium on Research Methods- ICIS 2003*, Information Institute, Seattle, December 13, 2003.
- Petkova O. and Petkov D. Towards a Pluralist Approach to the Evaluation of Factors Affecting Software Development Productivity, *International Symposium on Research Methods- ISOneWorld*, Information Institute, Las Vegas, April 23, 2003
- Cele, M. and Petkov D. The Technology Innovation Audit of a Small IT Company – A First Stage of the Strategy Formulation Process, *EURO/INFORMS Joint International Meeting*, Istanbul, Turkey, July 6-10, 2003.
- Petkov D., Jadoo, R and Tucker, K. Combining MCDM and SSM with GIS, *EURO/INFORMS Joint International Meeting*, Istanbul, Turkey, July 6-10, 2003
- Petkov, D., Petkova, O., and D'Onofrio, M., "Community Informatics and Community OR", *EURO/INFORMS Joint International Meeting*, Istanbul, Turkey, July 6-10, 2003
- Petkov D. and Muponisi, C. Investigation into Perceptions on Fuzzy Judgments in MAUT, *2002 Decision Sciences Institute Annual Conference*, San Diego, Nov 23-26.
- Petkov D., Petkova O and Keeka, M, Web DSS on Technology Innovation for Small Businesses Web, *INFORMS Annual Conference*, Miami Beach, November 2001.
- Nepal T., Petkov D, Ramdeyal, P K, and Petkova, O., Some Observations From An Application f A Combination Of Brainstorming And AHP In The Formulation Of A Strategic Plan For An Academic Department, *EURO 2001 OR Conference*, Rotterdam, July 2001.
- Petkova, O and Petkov D, How A Mixture Of Soft Or Techniques Can Support Legitimization Of An Intervention, *EURO 2001 OR Conference*, Rotterdam, July 2001
- Chuntharpursat A, Petkov D, and Archer D., Using Multicriteria Decision Analysis and the Analytic Hierarchy process as Decision Support Tools in Land Suitability with Regard to Natural Resource Management, , *ICORD 2001 (Int. Conference on OR in development, organized by IFORS, Kruger Park, April 2001*
- Petkov D and Petkova O, Web based decision support system applied to technology innovation for small businesses, *ICORD 2001 (Int. Conference OR in Development, organized by IFORS, Kruger Park, April 2001.*
- Petkov D, Andrew T. and Nepal T, A research program at MLSultan Technikon in decision support in rural telecommunications development, *ICORD 2001 (Int. Conference on OR in development, organized by IFORS, Kruger Park, April 2001.*
- Petkov D and Archer D, Improving environmental management decision making at local authority level through a web accessible multicriteria decision support system. *15th Int conference on Multiple Criteria Decision Making*, Ankara, Turkey, July 2000.
- Petkov D and Nepal T, On value elicitation for the evaluation of rural telecommunications infrastructure. *European OR Conference*, Budapest, July 2000.
- Nepal, T., O Petkova and D Petkov, A comparison between the process of the Analytic Hierarchy Process and Soft Systems Methodology, *Fall Conference of the Institute for Operations Research and Management Science (INFORMS)*, Philadelphia, November 1999.
- Petkov, D., T. Nepal, Mixing AHP with soft systems thinking in the evaluation of rural telecommunications, *Fifth Int Symposium on AHP*, Kobe, Japan, August 1999.
- McEwan T, Petkov D, and von Solms S, Towards Sustainable production and Consumption in a South African paper Mill, *Proceedings of the 1999 Eco-Management and Auditing Conference*, University of Leeds, United Kingdom, July 1-2, 1999.
- McEwan T, Petkov D, O'Neill C and von Solms S, Organizational and Personal Competence and the Implementation of ISO9002 and ISO14000 programs, *Proceedings of the 1998 Eco-Management and Auditing Conference*, University of Sheffield, United Kingdom, July 2-3, 1998.
- Petkova O., Petkov D. Combining Systems Thinking and MCDM in facilitation of organizational learning, *16th European Conference in Operations Research*, Brussels, 1998.
- Vezjak M., Petkov D. and E A Stuhler, A framework for an advisory system applied to ecological modernisation. *13th International Conference of the Int Society for Multiple Criteria Decision Making*, Cape Town, 6-10 January 1997.
- Petkov D., On Possible Indicators of Individual Research Output at the university and ways for Its Measurement, *The Third International Conference of the Third world Science, Technology and Development Forum*, Science and Technology in Reconstruction and Development, University of Natal, 1996
- Petkov D. and O. Mihova-Petkova, Problem Structuring in the Analytic Hierarchy Process and Soft Systems Methodology, *Fourth International Symposium on the Analytic Hierarchy Process*, Burnaby, Canada, 1996.

- Schreuder, P., D. Petkov and L. Haines, Experiments with a neural network approach to AHP with Interval Judgments, Fourth Int Symposium on the Analytic Hierarchy Process, Burnaby, Canada, 1996.
- Petkov D., K. Wortmann, E. Senior, An Application of Case Based Reasoning to Pre- transportation Handling of Hazardous Waste, 14th World Conference in Operations Research, IFORS'96, Vancouver, Canada, 1996.
- Petkov, D. and O. Mihova-Petkova, Towards a New Decision Support Systems Framework for Messy Problems, International Systems Conference "Systems Thinking At Work", Cape Town, 1995.
- Petkov, D., G.Finnie, V.Ram, A comparison of Undergraduate Programs in Information Systems in Southern African and North American Universities, International Conference on Computing in Southern Africa CISNA'94, Cape Town, 1994.
7. Petkov, D., On Some Applications of AHP as a Group Decision Support Tool in University Management, 14th EURO Operations Research Conference, Jerusalem, July 1995.
- Petkov, D., Factors Affecting Software Development Productivity-an AHP Model with Feedback, TIMS / ORSA Joint Conference, Boston, April 1994.
- Petkov, D., Prioritisation of factors Affecting Child Survival in a Third World Environment Using the Analytic Hierarchy Process, XIII World Conference on Operations Research, IFORS'93, Lisbon, Portugal, 12-16 July 1993.
- Petkov, D., and N. Penchev."Managerial Problems in Road Transportation", International Conference on Road Transportation, Varna, 1986.
- Petkov, D., and I. Breshkov."Improvement of the Management of Container Handling in the Port of Russe as a Factor for the Development of Inland-Water Container Transport", International Conference on Inland Water Transport, Russe, 1985.
- Petkov, D."Information Problems Associated with the Development of MIS for the Railway Container Transportation", International Scientific Conference on the Application of Computers in Railway Transport, Varna, Bulgaria, 1983.

OTHER NATIONAL AND REGIONAL CONFERENCE PRESENTATIONS OR POSTERS IN THE USA, SOUTH AFRICA AND BULGARIA:

61. Petkov, D. and Petkova O., A Design Science Multicriteria Approach for the Selection of IS Outsourcing Providers, Poster CSU Research Conference April 2011.
60. Stoloff, D., Seymour M. and Petkov, D. , Electronic Portfolios using Wordpress and Microsoft Live's SkyDrive to assess the Liberal Arts , CSU Assessment Conference, Danbury, April 2011
59. Sgambato, E. and Petkov, D. Facebook usage by ECSU students and why it matters, Poster CSU Research Conference April 2011
58. Petkov, D. and Petkova, O. Research Directions for Diffusion of Work System Method Ideas in Systems Analysis and Design, paper presented at the CSU Research Conference April. 2010.
57. Petkova O, Petkov D. and D'Onofrio M. (2008) , Implementing an Action Research Agenda in Information Systems Program Assessment Experiences at Two Universities, CSU research conference, ECSU, March.
56. Petkov D and Petkova O. (2008) Maintenance of multimedia CDs and web based teaching materials, CSU Academic Computing Conference, CCSU, April.
55. Petkov D and Petkova O. Using project rubrics for assessment of student learning in interrelated subjects, 10th CSU Faculty Research Conference, WCSU, Danbury, October 14th, 2006.
54. Petkov D. Assessment of student learning in the capstone BIS course, CSU assessment conference poster, 04.2006, (poster) New Britain.
53. Petkov D, Experiences with using WebCT and multimedia CDs in teaching IS, 2006 CSU Acad. Computing Conf., April 2006, Willimantic.
52. Petkov, D., and Petkova, O., "A Multicriteria Model for Decisions on Information Technology Activities to Outsource", 2005 CSU Faculty Research Conference, Central Connecticut State University, October 22, 2005, New Britain, CT, 2005
51. Petkov D. Development of rubrics for projects in the BIS program courses, poster, CSU Assessment conference, 04.2005. (poster). Willimantic.
50. Petkov D, Chandler L., Williams, B., Gimenez, R. and Williams, C. Combining WebCT with video lectures, CSU Academic Computing Conference, Danbury, 2005.
49. Michele, D and Petkov D., On the post-implementation review of how WebCT was introduced at ECSU, CSU Academic Computing Conference, New Britain, 2004
48. T Andrew, D Petkov, Application of a systemic framework for rural telecommunications planning, SATNAC ,

2002 , Cape Town.

47. Nepal T and Petkov D., The influence of facilitation in a group decision support systems environment, SAICSIT Annual Conference, Pretoria, September 2001
46. Nepal, T, Ramdeyal P K and Petkov D., Towards the prioritization of factors informing strategic planning in an academic department in a higher education institution, SAIMS Annual Conference, Stellenbosch, September 2001.
45. Quigley W and Petkov D, The use of Soft Systems Thinking to Facilitate the Change process of Tourism Education at a Tertiary Institution. SAIMS Annual Conference, UNISA, November 2000.
44. Petkov D and Petkova O, Combining MCDM and SSM in problem solving interventions. ORSSA Annual Conference, University of Stellenbosch, September 2000.
43. Nxumalo T and Petkov D, The applicability of expert systems for appropriate decision- making in selecting investments for small, medium and micro businesses. CEPPERT 2000 Conference, Durban, August 2000.
42. Jaca R S and Petkov D, Application of Critical Systems Thinking within Telkom(SA) Performance Management Systems. SAIMS Annual Conference, UNISA, November 2000.
41. Gregory J and Petkov D, The theoretical applicability of group support systems to the strategy formulation process of small to medium enterprises. CEPPERT 2000 Conference, Durban, August 2000.
40. Thakur, S. and Petkov D., A multicriteria approach to the design of a course in computer networking, SAICSIT Annual Research Symposium, Johannesburg, November.
39. D. Petkov, O. Petkova, On the theory about legitimization of software project management practices and a case study, SAIMS Annual Conference, University of Stellenbosch, 15-17 September 1999.
38. McEwan T and Petkov D., A Cost Factor Evaluation to The Efficiency of Environmental Management Policies, Proceedings of Systems Practice'98, Annual Conference of the SA Systems Society and the Operational Research Society of SA, University of Cape Town, 26-27 November 1998.
37. Petkov D and Petkova O Making Multicriteria Decisions in IT Outsourcing, 10th Annual Conference of the Computer Society of SA, Durban, 3-5 August, 1998.
36. Petkova O, Pillay K and Petkov D A Systemic Approach to Management Audit, Proceedings of the Biennial Conference of the Southern African Accounting Association, Johannesburg, July, 1998.
35. Petkov D and Ram V. Soft and Intelligent Computing and its Relevance to the IS Curriculum, Proceedings of the 28th Conference of the SA Computing Lecturer's Association, Stellenbosch, 28-30 June, 1998.
34. Kunene N and Petkov D On problem structuring in an Electronic Brainstorming (EBS) environment. Proceedings of SAICSIT Annual Research and Development Symposium, University of Natal Press, Cape Town, 1998.
33. Motilall A., Petkov D., Stewart R., Els L., Improving Research Interaction within the University through the development of an Intranet, SACLA Conference, Stellenbosch, 1998.
32. Wortmann K L., Petkov D and Senior E. On Indexing in Case Based Reasoning Applied to Pre-transportation of Hazardous Waste Handling, The 1997 National Research and Development Conference of SAICSIT, Vanderbijlpark, 13-14 November 1997.
30. Petkov D, Petkova O. Information Systems Development and Multicriteria Decision Making/Systems Thinking, The 1997 National Research and Development Conference of SAICSIT, Vanderbijlpark, 13-14 November 1997.
29. Pothas A., de Wet AG and Petkov D. A comparison of results by GABEK and SAST applied to conceptualization of ideas on the partnership between tertiary institutions and the community in the Kwa Zulu/Natal Midlands Area. ORSSA Annual National Conference. Illovo Beach, 1997
28. Petkov D., Z. Nxumalo, S. Msimang. Decision Support for the University Student Services Division. ORSSA Annual National Conference. Illovo Beach, 1997
27. Petkov D. O Petkova, Systems Thinking, Multicriteria Decision Support Systems and the practice of management, Ninth Annual Conference of the SA Inst of Management Scientists, Pietermaritzburg 1997
26. Petkov D., Systemic Problem Solving and Multi Criteria Decision Making, Systems Conference, UCT, 5-8 November 1996.
25. Petkov D. and P. Schreuder, A Neural Network Approach to the Problem of Prioritization of factors affecting programmer productivity under uncertainty, ORSSA annual conference, Mbbane, 8-10 October 1996.
24. Petkov D. and O. Mihova-Petkova, On Total Systems Intervention as a Systemic Framework for the Organization of the Model Base of a Decision Support Systems Generator, Research symposium of SA Institute of Computer Scientists and Information Technologists, Durban, 1996.
23. Petkov D. and O. Mihova-Petkova, Some Comparisons of Problem structuring in Artificial Intelligence, the Analytic Hierarchy Process and Soft Systems Methodology, ORSSA National Conference, Broederstroom, 1995.
22. Mackenzie P. and D. Petkov, Application of Genetic Algorithms to the Traveling Salesman Problem, 3rd Natal CS&IS Conference, 1995.

21. Wortmann K. and D. Petkov, On Case Representation and Indexing in Case Based Reasoning, 3rd Natal CS&IS Conference, 1995
20. Petkov, D. and O. Mihova-Petkova, A Network Model for the Prioritization of Factors Affecting Software Development Productivity, Research and Development Symposium of the SA Institute of Computer Scientists and Information Technologists, UNISA, May, 1995.
19. Wortman, K., D. Petkov and E. Senior, Case Based Reasoning Applied to Pre-Transportation Handling of Hazardous Waste - some preliminary results, Second Annual Natal Conference in Computer Science, Software Engineering and Information Systems, October 14, 1994, University of Natal.
18. Wortmann, K., E. Senior and D. Petkov, A Case Based Reasoning Intelligent Decision Support System to Assist in Pre-Transport Decisions for Hazardous Waste, Seventh Annual Symposium of the South African Society for Microbiology (Natal branch), University of Natal, 13 October 1994.
17. Petkov, D. and A. Gialerakis, An Experiment with a Group Decision Support System in the University Environment, Sixth Conference of the Southern African Institute for Management Scientists, Cape Town, September 1994.
16. Haines. L., Petkov D. and P. Schreuder, The Analytic Hierarchy Process with Interval Judgments, Annual Natal Mathematical Conference, 1994.
15. Petkov, D., The Analytic Hierarchy Process and its Application in Information Systems Analysis and Design, South African Computer Lecturers' Association Conference, Tzaneen, 1994.
14. Petkov, D., G. Finnie, V. Ram, Comparison of BIS Courses as Offered in the RSA and the USA, Computer Science and Business Information Systems Miniconference, Univ. of Natal, Pietermaritzburg, September 1993.
13. Petkov, D., L. McCarney, R. Ross, Prioritization of Factors Affecting the Marketing of Upgrades for Personal Computers: an Application of the Analytic Hierarchy Process, Fourth National Marketing Educators Conference, Durban, Sep. 1993.
12. Petkov, D., The Analytic Hierarchy Process as a Tool for the Propagation of Management Policies on the Selection of Information Technology in a Decentralized decision Making Environment, Annual Operational Research Society of SA Conference, 1993.
11. Petkov, D., D. Theessen, E. Price, A Software and Hardware Decision Support System, SACLA Conference, Hunter's Rest, 1993.
10. Petkov, D., A Multicriteria Decision Support System for the Evaluation of Lectureship Applicants, SACLA Conference, Rustenburg, 1992.
9. Petkov, D. Finnie G., V. Ram, Investigation into the Status of Undergraduate Programs in Information Systems in Southern Africa, SACLA Conference, Rustenburg, 1992
8. Petkov D., A Multicriteria Model for the Selection of Financial Planning Software, Fourth Conf. of SAIMS, Bloemfontein, 1992.
7. Petkov, D., Modeling of Factors Affecting Child Survival, Forum on the Rural Urban Interface, Univ. of Natal, Durban, 1991
6. Petkov, D. "A Decision Support System for Planning Purposes", Scientific Conference on Planning Techniques, Sofia, 1986
5. Petkov, D. "Prospects for Unification of Transport Documentation", Second Youth Seminar on Computer Applications in Transportation, Sozopol, 1986.
4. Petkov, D., and S. Savova, "Decentralization of the Processing of Information in Road Transport with the Application of Microcomputers", Youth Scientific Symposium on New Techniques in Transportation, Sofia, 1985.
3. Tzarvulanova, T., O. Georgiev, I. Bukovska, A. Dorovska, H. Penchev, D. Petkov, P. Markova, D. Radosavov. "Dialogue System for Computerized Scheduling of Road Haulage Transportation", Youth Scientific Symposium on New Techniques in Transportation, Sofia, 1983.
2. Petkov, D. "Trends in the Unification of the Port Container Documentation of the CMEA Countries", First Youth Seminar on Computer Applications in Transportation, Varna, 1984.
1. Petkov, D. "Accounting of Places and Reasons for Vehicle Faults" Youth Scientific Symposium on New Techniques in Transportation, Sofia, 1979.

TECHNICAL REPORTS:

Petkov D., Decision Making Techniques, for distance learning MBA students registered at Herriot Watt University, United Kingdom, studying in SA through CAMDEV, Durban 1992.

Petkov D. Report on findings related to the University of Natal standing as represented in the 1993-1994 survey on resources for research and development, Dept of Arts, Science and Technology, A report commissioned by the

University Research Committee 1996

Petkov D., R Haines and P Stopforth, Indicators of individual research output at universities and their measurement, A report commissioned by the University Research Committee, 1997

Petkov D., Palmery I., Nxumalo Z., Msimang S. and Budek M. On potential issues that may cause conflicts on the Pietermaritzburg Campus of the University of Natal, ORSSA report, October 1997.

Petkov D, Buller N and Gerritz, J, How Information technology is used for administrative purposes and how it supports current business processes at the University of Natal, a report commissioned by the IT Steering committee, University of Natal, November 2001.

Petkov D. Analysis of the MBA (MIS) program at Montclair State University at the request of the Dept Curriculum Committee, June 2002.

PetkovD. On assessment issues in the BIS program at ECSU, September 2005.

Petkov D. Assessment in the capstone BIS course, April 2006.

Petkov D, Citurs A. A new introductory GER course on Information management, October 2006.

Petkov D, Citurs A., Assessment of the infrastructure and office needs of the Business department at ECSU, January 2007.

RESEARCH, FACULTY DEVELOPMENT OR CSU ASSESSMENT GRANTS

At ECSU:

2011-2012: CSU Research Grant “Investigation in Possibilities for mixing systems approaches with agile IS development methodology”.

2010-2011: Participated in a team that obtained an ECSU grant on e-portfolios.

2009-2010: Faculty Development grant to chair a panel at the ECIS June 2010 in South Africa.

2007-2008: CSU grant on assessment in critical thinking across the curriculum

2005-2006: CSU grant on assessment in the capstone course in BIS.

2004-2005: CSU grant on using rubrics for assessment in BIS projects

Prior to 2002:

-1998-2001 Within a consortium with Council for Scientific and Industrial Research (CSIR), ARC, Univ of Pretoria, obtained a 300 000 rand National Innovation Fund grant (approximately 60000 USdollars) by the Dept of Arts Science, Culture and Technology, Pretoria, South Africa. Topic: South African Integrated Spatial Information System; Subproject: A WWW Accessible MCDM Decision Support System for Environmental Management.

-1999-2001 Within the Center for Excellence for Rural Telecommunications, ML Sultan Technikon (now Durban Institute of Technology) Durban, South Africa, established with T Andrew and T Nepal a research program on Decision Support for Telecommunications Management, involving projects on infrastructure evaluation and planning, Case Based Reasoning and Multi Criteria Decision Making applied to rural telecommunications development.

-1999-2001 National Research Foundation, Pretoria, South Africa: Grant for participation in a joint project with the Systems Research Institute of the Polish Academy of Sciences on Exploration of Fuzzy Logic Extensions to Multi Attribute Decision Analysis.

D. SERVICE TO THE PROFESSION

Membership of professional societies and service

Current: Association for Information Systems, Association of Information Technology Professionals, International Society for Multi-Criteria Decision Making.

Past: IEEE Computer Society, The Institute for Operations Research and Management Sciences-INFORMS and its MIS Society(USA), UK Systems Society, Computer Society of South Africa (1991-2001); The Southern African Institute for Management Scientists (1992-2001) (member of the National Council 1993-1997), SA Institute of Computer Scientists and Information Technologists (1994-2001) (during 1996 -1998 Vice President), ORSSA, International Working Group on Operations Research and Complex Societal Problems.

Journal Editorial work

- Deputy Editor (USA) (2007 -) of Systems Research and Behavioral Science, the Journal of the International Federation for Systems Research, published by J.Wiley, Chichester-New York, Member of the Editorial Board since 1994.
- Co-Editor in Chief of International Journal of Computers, Systems and Signals (IJCSS) (2004- 2009); Member of the Editorial Board s of:
- Int. Journal of Inf. Technologies and the Systems Approach, IGI Global (2007-) - previously Senior Area editor for Software Engineering for this journal, 9.2007-.9.2009;
- International Journal of Decision Support System Technology, IGI Global (2008-);
- Scientific Inquiry Journal (2007-);
- Information Systems Education Journal (ISEDJ) (2007-);
- Journal of Information Systems Applied Research (2010-)
- Guest Co-editor of a 2007 special issue on Information Systems and Systems Thinking of the Information Resources Management Journal (Idea Group); of a special issue of IJCSS (2003); of a special issue of the Intl Journal on Nonlinear Analysis in Engineering Systems (Kazan, 2005), of a special section on IS and systems thinking in Scientific Inquiry (2008).

Program Committee Member of Conferences or other research-related organizational activities

- Member of the program committee, 2007-2011 Intl Digital Government Research Conferences.
- Member of the program committee, 2008 Intl Conference on Information Resources Management (Conf-IRM), May, Canada
- Track chair (Systems Thinking/Systems Practice), ISOneWorld 2007 Conference. Las Vegas
- Member of the organizing committee for the 2007 Intl Systems Conference of IIGSS, Wuhan, China.
- Co-Chair of the Doctoral Symposiums, ISOneWorld Conf.,Information Institute, Las Vegas, 2005, 2004.
- Chair of the IS track at the IABT conference (2006).
- Member of the organizing committee of the CSU Academic Computing Conference,2004-2008
- Organized two special sessions on Complex Societal Problems, track on MS/OR, DSI 2004 in Boston.
- Co-chaired a workshop on Systems Thinking Applied to Complex Societal Problems, November 2004, Willimantic (with 12 papers and 23 participants from New England and PA)
- 2004 and 2003 Co- Organized a mini-track for AMCIS 2004, New York, and AMCIS 2003 in Tampa Fl.
- 2001 Member of the program committee of the 2001 Australo-Asian Information Systems conference.
- 1999 Member of the Program Committee, Intl Symp.on the Analytic Hierarchy Process, Kobe, Japan
- 1999 Member of the Program Committee, International Conference on Information Systems, Charlotte, NC
- 1998 Member of the Program Committee of the Intl Conference on Systems Signals, Control Computers, organized by IAAMSAD, Durban, 22-24.09. 1998.
- 1998 Program Co-Chair: SAICSIT Annual Research and Development Symposium, Cape Town, 1998.
- 1997 Member of the Organizing Committee of the Intl Conference on MCDM, Cape Town, 01.1997.
- 1997 Co Chairperson of the Program Committee of the Ninth Conference of the South African Institute for Management Scientists, Pietermaritzburg, 2-3 June 1997.
- 1996 Member of the Program Committee for the Fourth Intl Symposium on the AHP, Vancouver, Canada
- 1996 Organizing Chairman of SAICSIT 1996 in Pietermaritzburg.

Reviewer for journals, various research funding bodies or research conferences:

Decision Support Systems (Elsevier) (2004-2005, 2007, 2008,2009, 2010, 2011)
 OMEGA (Elsevier) – 2005, 2009.
 Information and Software Technologies (2010)
 Information Systems Frontiers Springer (2007) ;
 International Journal on Information Technologies and the Systems Approach IGI (2007-2010)
 Systems Research and Behavioral Science (published by J. Wiley, UK) (1996-2009).
 Journal of Information Technology Theory and Applications (AIS) (2006).
 Information Resources Management Journal (IRMA) (2006-2007).
 Journal of Information Systems Education (2005- 2010)
 Informing Science conference (2004-2006).
 Intl Conference on Digital Government (2006-2009).

International Academy of Business and Technology Conference (2006).
 Intl Hawaii Conference on the Systems sciences (2006, 2007)
 National Research Foundation of South Africa- reviewer for various research proposals (1998-2009).
 Computer Standards (2005).
 International Journal of Management and Decision Making (Interscience Publishers, UK) (2004)
 Electronic Markets. Switzerland (2004)
 International Journal Computer Standards and Interfaces (Elsevier) (2005)
 ISOneWorld Conference 2005, Las Vegas, Information Institute, (2003-2005)
 International MIS Conference by the Informing Science Institute(2006 and 2003).
 Americas Conference in Information Systems (AMCIS) (2003-2004).
 Second International Conference on Systems Thinking in Management, U. of Pennsylvania, (2004).
 De Ratione (SA Accounting Journal) (1992-2002).
 OriON (South African OR Journal), (1994-2001).
 Management Dynamics , Journal of the South African Institute for Management Scientists (1992-2002).
 South African Computing Journal (1992-2002, 2007).
 International Journal on Signals, Systems and Computers (1999-2010).
 European Journal of Operational Research (1992-2002)
 The South African Computing Research Symposium organized by SAICSIT (1992-2002)
 International Conference on Soft Computing and Intelligent Systems for Industry, Paisley, Scotland, UK, June 2001
 International Conference on Information Systems, Charlotte, December 1999
 Proceedings of the 1997 Conf. of the Intl Society For Multi-Criteria Decision Making publ. by Springer.

E. SERVICE TO THE UNIVERSITY

At School and departmental level

- Member of the 2004-2008 and 2010 – 2011 Student Research Excellence Expo School Committee
- Member of the school undergraduate research committee 2010-2011
- Chair of the Department Evaluation Committee 2010-2011

At ECSU level

- Member of the Information Technology university committee – 2009-11
- Member of the Academic Program Review Committee – 2010-2011
- Member (alternate) of the University CSU Professorship committee – 2010-2012
- Member of the University Assessment of Student Learning Committee 04.2006 -12.2008
- Member of the University Senate Faculty Development Committee 10.2006-12.2008
- Member of the student leadership honor society selection committee 2005
- Member of the LAC committee on Critical Thinking across the curriculum 2006
- Member of Earth Day committee – 2006-7
- Chair University Honorary Degree committee since 09.2004 till 05.2007
- Member of the University committee for preparation of the Fifth Year Accreditation Report to the New England Association of School and Colleges (NEASC), 2004-2005.
- Member of the working group on Information Literacy, formed by the university LACC 2005-June 2006

At the level of CSU

- 2010-2011 – member of the CSU Research Conference committee
- 2004-2008 – Member of the CSU Academic Computing Conference Committee

F. OTHER

Invited lectures, seminars, additional activities

- On Design Science and MCDM applied to IS outsourcing decisions, invited paper, International Conf on MCDM, Finland, June 2011
- An AHP model of factors affecting software development productivity, Johannes Kepler University, Linz, Austria, 25 June 1995
- Systems Thinking and Multicriteria Decision Making in Information Systems Development, an invited talk at the Lincoln school of Management, University of Lincolnshire and Humberside, United Kingdom, 30 October 1997
- On the application of Soft Systems Methodology in Information Systems, invited lecture to the Masters class in

Software Engineering Management, University of Detroit, Mercy, Michigan, USA, 12. 1999.

-On the relevance of Soft Systems Methodology to the Electrical Engineering profession, invited lecture to the Kwa Zulu Natal branch of the South African Institute of Electrical Engineers, Durban, March 2000.

- On Systems Thinking and Software Engineering and Information Systems, University of Cape Town, February 2009 (with O Petkova).

- A series of seminars on research issues in Information Technology, Durban University of Technology, Feb-March 2009 (with O Petkova)

- On bringing together Software Engineering and the systems approach, UNISA, Pretoria, April 2009.

Awards and honors

1972: Gold medal for excellent results during secondary school education

1977: First prize in the student research competition, Technical University Brno, Czech Republic

1995-2001: Included in the 12th and subsequent editions of Marquis' Who Is Who In the World, 1995.

1992-1995 Member of the National Council of the SA Institute of Management Scientists.

1996-1998 - Vice president of the South African Institute of Computer Scientists and Information Technologists.

2002 – Honorary professor in MIS at the University of Natal, Pitermaritzburg, South Africa

2011- Included in Marquis' Who Is Who in America.