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- Education, scientific dissertations:** 1989 - B.Sc. (Dipl. Eng., 5 years-10 semesters): "Energy efficiency analysis of a boiler plant in a textile industry", Faculty of Mechanical Engineering, University "Sts. Cyril and Methodius", Skopje, Macedonia;
1997 - M.Sc. in Mechanical Engineering: "Heat Transfer in Stationary Fluidised Bed Boiler Furnaces";
2004 - Ph.D. thesis "Modelling of Thermal Processes and Optimisation of Energetic-Environmental Characteristics of Modern Boiler Plants"
- Present position:** Professor, Faculty of Mechanical Engineering, University "Sts. Cyril and Methodius", Skopje, Macedonia
Subjects at undergraduate study programmes: Thermodynamics, Boiler Plants, Energy Conversion Technologies, Processing Technique, Thermal Analysis with CFD
Subjects at MSc study programmes: Thermodynamics - selected chapters, Energy management, Boiler plants - selected chapters, Energy conversion processes, Clean energy technologies, Fuels and environment
Subjects at PhD programme: Modelling of energy conversion processes - Selected Chapters, Modelling of energy conversion processes and environmental impact
- Other positions:** (1) Vice-President of the Adria Section of the Combustion Institute (ASCI) – regional section of the International Combustion Institute, 2013-
(2) Technical Coordinator of the UNIDO National Cleaner Production Centre, Macedonia, 2007-2008
(3) Member of the roster of experts for the National Communications of R. Macedonia under the UN Framework Convention on Climate Change – Energy sector
(4) President of the Technical Committee 29 (Gas Appliances) of the Institute for Standardisation of R. Macedonia, 2007-2011
(5) Member of the Technical Committee 27 (Gas technique) of the

Institute for Standardisation of R. Macedonia, 2011-

(6) Member of the National Steering Committee of the Global Environment Facility SGP (GEF SGP), 2007-2012

(7) Evaluator of projects in the field of thermal energy and power engineering in the programmes Intelligent Energy Europe, Horizon2020 (Energy programmes), Erasmus+

(8) Member of the Editorial Board of (Int. Journal) Thermal Science

(9) Reviewer of international scientific journals

(10) Member of the Scientific Advisory Boards of a number of international scientific conferences covering the areas of energy, thermal engineering and environmental issues

Reviewer, evaluator

a) Scientific journals

- Energy, Applied Energy, Applied Thermal Engineering; Journal of Cleaner Production, Renewable Energy (Elsevier), Energy Conversion and Management (Elsevier)
- Proceedings of the Inst. Of Mech. Eng: Int. Journal of Power and Energy, Journal of Mechanical Engineering Science, Journal of Aerospace Engineering (SAGE Publishing, London);
- Thermal Science (International Scientific Journal);
- Energy&Fuels (Published by the American Chemical Society)
- other international journals

b) Evaluator of the project proposals for Intelligent Energy Europe, Horizon2020 (Energy programmes), Erasmus+ and other EU programmes

Fields of expertise:

Energy and environment, thermal and power engineering, energy efficiency in industry, public and services sectors

Professional and research specialization:

- Modelling of thermal processes (combustion and heat transfer) in steam and hot-water boilers and industrial furnaces; computational fluid dynamics and computational thermal analysis (CFD/CTA); combustion technologies; fluidised beds; advanced techniques in thermal engineering;
- Energy management and energy auditing; energy efficiency and environmental issues in thermal power generation; industrial energy efficiency and pollution prevention; air pollution control including greenhouse gases (GHG) control;
- Renewable energy sources: biomass and solar energy
- Consulting, engineering, design of thermal engineering systems (boiler plants; steam and hot-water systems, industrial furnaces, combustion etc.); energy efficiency and energy saving; energy auditing

Study stays, visits and trainings:

- ZPO "Gracja" (Process engineering), Lublin, Poland (1988)
- REK "Bitola", (Thermal Power Plant), Bitola, Macedonia (1990);
- Institute "Vinca", Laboratory for Thermal Engineering and Energy, Belgrade, Serbia (1992, 1996, 1997, 2002);
- CFD in Thermal Engineering Course, Fluent Italia Srl, Milano, Italy (2000);
- "RAFAKO" SA, Boiler Engineering Company, Raciborz, Poland (study stays and technical visits in 1994, 1995, 1997, 2003);
- Energy Management (3 months), JICA KIC Kitakyushu, Japan (2006);
- UNIDO NCPC Advanced Management Training, Semmering, Austria, 2007;
- Vrije University, Department of Fluid Mechanics and Thermodynamics,

	Brussels, Belgium (2006, 2009)
	- Bochum University, Bochum, Germany (2007)
	- Zagreb University, Faculty of Mechanical Engineering and Naval Architecture, Zagreb, Croatia (techn. visits 2012, 2013, 2016, 2018)
	- Tubitak Marmara Research Centre, Istanbul, Turkey (2013)
	- Vienna Technical University, Research Centre Wiener Neustadt, 2016
Publications:	- about 30 papers in international scientific and professional journals
	- over 100 articles presented at international congresses, conferences, symposia, seminars and other scientific and technical meetings
	- about 70 scientific-research projects, applicative projects, studies, professional works, expertises etc.
	- textbooks, publications for teaching purposes, brochures
Membership - international conferences scientific and advisory boards	Kuwait 2009, SDEWES-2012, -2013, -2015, -2017, RESRB-2017-2020 Wroclaw-Brussels, ECM-2017 Dubrovnik, IEEP 2017 Zlatibor, Serbia
Foreign languages:	English, South-Slavic languages (Serbian, Croatian, Bulgarian), Polish, Russian

List of References

1) SCIENTIFIC DISSERTATIONS

1. R. V. Filkoski: *Heat Transfer in Boiler Furnaces with Stationary Fluidised Bed*, M.Sc. Thesis, Univ. "Sts Cyril and Methodius", Faculty of Mechanical Engineering, Skopje, 1997
2. R. V. Filkoski: *Modelling of Thermal Processes and Optimisation of Energetic-Environmental Characteristics of Modern Boiler Plants*, Ph.D. Thesis, Univ. "Sts Cyril and Methodius", Faculty of Mechanical Engineering, Skopje, 2004

2) MONOGRAPHS, TEXTBOOKS

1. R. V. Filkoski: *Thermal Calculations in Boiler Technique*, Textbook (working version), Faculty of Mechanical Engineering, Skopje, 2006
2. R. V. Filkoski: *Energy Technologies for Environment Protection*, Textbook (working version), Faculty of Mechanical Engineering, Skopje, 2007
3. R. V. Filkoski: *Modelling of Energy Conversion Processes*, Textbook, Tempus CARDS JEP-19017 "Numerical Simulation Program in Mechanical Engineering", Faculty of Mechanical Engineering, Skopje, 2009
4. R. V. Filkoski: *Thermal Devices*, Textbook (working version), Faculty of Mechanical Engineering, Skopje, 2008
5. I. J. Petrovski, R. V. Filkoski: *Air Pollution Control*, Textbook, DEREK Tempus JEP CD_JEP-19840-2004 "Development of Environmental and Resources Engineering Curriculum, Florence-Skopje, 2008
6. R. J. Tashevski, R. V. Filkoski: *Engineering Graphics for Environmental Engineers*, Textbook, DEREK Tempus JEP CD_JEP-19840-2004 "Development of Environmental and Resources Engineering Curriculum, Florence-Skopje, 2008
7. M. Azievska (coord.), R. V. Filkoski et al.: *Second National Communication on Climate Change*, monography, MoEPP, ICEIM-MANU, Skopje, 2008, ISBN 978-9989-110-68-9

8. I.J. Petrovski, R.V. Filkoski, S. Kozinakova, E. Kitanovska, B. Stanojevska Pecurovska, Handbook for Energy Management in Processes in Food and Drinks Processing Industry, Publ. Centre for Climate Change, Energy Agency of the Republic of Macedonia, CIP 620.9:005(035), ISBN 978-608-65794-0-1, Skopje, 2015 (И. Ј. Петровски, Р. В. Филкоски, С. Козинакова, Е. Китановска, Б. Станојеvsка Пеџуровска: Прирачник за енергетски менаџмент и енергетска ефикасност во индустрија, Агенција за енергетика на РМ и Центар за климатски промени, CIP 620.9:005(035), ISBN 978-608-65794-0-1, Скопје, 2015)
9. R. V. Filkoski, Process Technique and Processing Engineering, FME, 2020
10. R. V. Filkoski, Energy Conversion Technologies, FME, 2020

3) SCIENTIFIC AND TECHNICAL PAPERS IN JOURNALS

1. D. Tashevski, R. Filkoski, R. Tashevski: *Model for Estimation of the Pollutants Concentrations in Urban Areas*, Procesna tehnika, No 3-4, 1996, pp. 206-213
2. R. V. Filkoski, L. Przybylski, I. J. Petrovski: *Verification of Method for Estimating the Combustion Efficiency in a Fluidised Bed Combustor*, (An International Journal of) Thermal Science, Vol. 4 (2), 2000, pp.101-111
3. R. V. Filkoski, A. J. Stefanova, I. J. Petrovski, A. Nošpal: *Investigation of the Thermal Characteristics of Circulating Fluidised Bed Furnaces*, Procesna tehnika, Vol. 18, No.1, 2002, pp.83-86
4. R. Filkoski, I. Petrovski, I. Sekovanić: *Energy and Environmental Effects of the Substitution of Fuel Oil With Natural Gas in Hot-Water Boilers of VKSM Type*, Procesna tehnika, Vol. 18, No.1, 2002, pp.157-160
5. R. V. Filkoski, I. J. Petrovski: *Computational Fluid Dynamics in Function of Boilers' Revitalisation*, 15 Int. Symp. POWER AND PROCESS PLANTS, Dubrovnik, Strucni casopis EGE, 2002
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10. R. V. Filkoski, I. J. Petrovski: *Advanced Computational Methods for Complex Simulation of Thermal Processes in Power Engineering*, Journal of Academy of Sciences of Republic of Moldova, No.1, 2007, pp. 24-37
11. R. V. Filkoski: *Radiation Heat Transfer Modelling and CFD Analysis of Pulverised-Coal Combustion with Staged Air Introduction*, Archives of Thermodynamics, Vol. 30(2009), No. 4, IFFM Publishers, 2009, pp.97-118
12. R. V. Filkoski: *Pulverised-Coal Combustion with Staged Air Introduction: CFD Analysis with Different Radiation Methods*, The Open Thermodynamics Journal, Vol. 4(2010), Bentham Science Publishers, 2010, pp. 2-12
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4) SCIENTIFIC PAPERS AT CONGRESSES, CONFERENCES, SYMPOSIA AND SEMINARS

1. D. Tashevski, R. Filkoski, R. Tashevski, D. Bitrakovski: *Analisis of the Air Pollution From Fluidised Bed Boilers*, 5th Meeting of the Society of Thermal Engineers of Macedonia, Ohrid, 1995
2. R. V. Filkoski, I. J. Petrovski: *A Model for Thermal Calculation of Stationary Fluidised Bed Boiler Furnace*, 1st South-Eastern European Symposium on Fluidised Beds in Energy Production, Chemical and Process Engineering and Ecology, Ohrid, 1997
3. R. V. Filkoski, I. J. Petrovski: *Efficiency of the Combustion Process in the Stationary Fluidised Bed Boiler Furnace*, 1st South-Eastern European Symposium on Fluidised Beds in Energy Production, Chemical and Process Engineering and Ecology, Ohrid, 1997

4. R. V. Filkoski, I. J. Petrovski: *A Method for Estimating the Combustion Efficiency in Stationary Fluidised Bed Boilers*, 3rd Conference on Energy Research Problems "PBEC '97", Warsaw, 1997
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6. R. Filkoski, V. Stojkovski, I. Petrovski: *Heat Transfer in the Freeboard Region of a Stationary Fluidised Bed Boiler Furnace*, 13th International Congress of Chemical and Process Engineering "CHISA '98", Praha, 1998
7. R. V. Filkoski, I. J. Petrovski: *Heat Transfer in Fluidised Bed Boiler Furnaces*, 37th International Energy Agency FBC Meeting, Chatou, France, 1998
8. R. V. Filkoski, I. J. Petrovski: *Modelling of Thermal Processes in Pulverised Coal-Fired Boilers – An Overall Programming Frame*, 4th Conference on Energy Research Problems "PBEC '99", Warsaw, 1999
9. R. V. Filkoski, L. Przybylski, I. J. Petrovski: *Verification of the Method for Estimating the Combustion Efficiency in a Fluidised Bed Combustor*, 2nd South-Eastern European Symposium on Fluidised Beds in Energy Production, Chemical and Process Engineering and Ecology, Arandjelovac, Yugoslavia, 1999
10. R. V. Filkoski, I. J. Petrovski, I. Gjurkov: *Influence of the Burner System to the Thermal Processes in Pulverised Coal-Fired Boilers*, 14th International Congress of Chemical and Process Engineering "CHISA 2000", Praha, 2000
11. R. V. Filkoski, I. J. Petrovski, I. Gjurkov: *Environmental Impact of the Substitution of Oil with Natural Gas in Hot Water Boilers*, 14th International Congress of Chemical and Process Engineering "CHISA 2000", Praha, 2000
12. R. V. Filkoski, I. J. Petrovski: *CFD Modelling Helps the Prediction of Boiler Performances When Fired with Alternative Fuel*, ASME-ZSITS International Thermal Science Seminar, Bled, Slovenia, 2000
13. I. J. Petrovski, R. V. Filkoski: *Nitrous Oxides in Flue Gases of Oil Fired Steam Generators*, International Symposium ZEMAK 2000, Ohrid, 2000
14. R. V. Filkoski, A. J. Stefanova, I. J. Petrovski: *Investigation of Concentration and Temperature Profiles in a CFB Riser*, 3rd Symposium of South-East European Countries "Fluidized Beds in Energy Production, Chemical and Process Engineering and Ecology", Sinaia, Romania, 2001
15. R. V. Filkoski, I. J. Petrovski, A. Nospal, V. Stojkovski: *CFD Predictions of Heat Transfer in Circulating Fluidised Bed Boilers*, 2nd Southeastern Europe Fluent Users Group Meeting, Bucharest, Romania, 2001
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20. R. V. Filkoski, I. J. Petrovski, A. T. Nospal: *CFD Simulation of Processes in Pulverised Coal-Fired Boiler Furnace*, 15th International Congress of Chemical and Process Engineering "CHISA 2002", Praha, Czech Republic, 2002, http://www.chisa.cz/2002/contrib_list_affil.asp
21. R. V. Filkoski, I. J. Petrovski, A. T. Nospal, A. J. Stefanova: *CFD Simulation of Processes in Circulating Fluidised Bed Boilers*, 13 International Symposium on Transport Phenomena, Victoria, British Columbia, Canada, 2002
22. R. V. Filkoski, I. J. Petrovski, A. T. Nospal: *CFD Technique for Utility Steam Generators: Challenges and Opportunities*, International Energy Forum 2002, Varna, Bulgaria, 2002
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28. R. V. Filkoski, P. Karaš, I. J. Petrovski: *3-D Modelling of Pulverised-Coal Combustion in Power Boiler with Tangential Furnace*, 6th International Conference "Power Engineering Research Problems", Warsaw, 2003
29. R. V. Filkoski, I. J. Petrovski: *Investigation of Furnace Processes in Power Steam Generators Based on CFD Simulation Tools*, Int. Symposium "Power Plants", Vrnjacka Banja, 2004
30. R. V. Filkoski, I. J. Petrovski, P. Karaš: *CFD/CTA Modelling Suggests Ways Towards Lower Emission From Pulverised Coal Combustion*, International Symposium "Moving Towards Zero-Emission Plants", Leptokarya Pieria, Greece, 2005
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33. I. J. Petrovski, R. V. Filkoski: *Biomass as Energy Source in Local Conditions in Macedonia*, 12th Symposium of the Society of Thermal Engineers of Serbia and Montenegro "Energy, Efficiency, Ecology", Sokobanja, 2005
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35. R.V.Filkoski, S.V.Belosevic, I.J.Petrovski, S.N.Oka, M.A.Sijercic: *Computational Thermal Analysis of Phenomena Occuring in Coal Fired Steam Generators*, 10th International Conference on Boiler Technology, Gliwice-Szczyrk, 2006
36. R. V. Filkoski, I. J. Petrovski: *Waste Biomass for Energy Purposes in Macedonia: Some Regional Aspects*, 3rd Int. Congress "Energy Efficiency & Renewable Energy Sources – Bioenergy Forum", Sofia, 2007
37. R. V. Filkoski: *Industry Overview and Possibilities for Implementation of CP Projects in Macedonia*, UNIDO Workshop "Supporting Tools for E&C European NCPs", St. Petersburg, 23-25 April, 2007
38. I.J.Petrovski, R.V.Filkoski: *Options for Reactivation of 210 MWe Oil-Fired Power Plant*, 13 Symposium of Thermal Engineers, Sokobanja, Serbia, 2007
39. R.V.Filkoski, I.J.Petrovski: *Energy Sector – Industrial Energy Transformations and Heating*, Workshop for presentation of the study on mitigation of GHG emission, MANU-UNDP, Skopje, November 2007
40. R.V.Filkoski, I.J.Petrovski, B.S.Avramovska: *Industrial and Low-Temperature Energy Transformations: Some GHG Emission Mitigation Options in Macedonia*, Conference "Sustainable Development and Climate Changes SUSTAINNIS 2008", Nis, Serbia, 2008
41. R.V.Filkoski, I.J.Petrovski, B.S.Avramovska: *Energy Transformations and GHG Emission Mitigation Options in Macedonia*, International Conference "Power Plants 2008", Vrnjacka Banja, Serbia, 2008
42. R.V.Filkoski: *Energy Efficiency and Energy Saving in Industry*, 5th International Summer School "Renewable Energy and Energy Efficiency in SE Europe", REIC – Sarajevo, Fojnica, B&H, 2009
43. R. V. Filkoski, I. J. Petrovski, A. T. Nospal, V. M. Stojkovski: *Energy Efficiency and Energy Saving in Industry and Services*, 14 Symposium of Thermal Engineers, Sokobanja, Serbia, 2009

44. R.V. Filkoski: *Renewable Energy Sources: Greenhouse Gases Emission Mitigation Potential in the SE European Countries*, WFEO Int. Eng. Congress "Alternative Energy Applications, Option or Necessity?", Kuwait, 2009
45. R.V. Filkoski: *The Power of Energy Efficiency*, Purdue Session "Global Engineering Challenges", WFEO Int. Eng. Congress "Alternative Energy Applications, Option or Necessity?", Kuwait, 2009
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47. B. Stanojevska, R. V. Filkoski: *The Power of Energy Efficiency and Energy Saving*, Graduate Student Conference: Implementing Energy Efficiency through Renewable Energy Solutions, Analytica - Faculty of Electrical Engineering, Skopje, June 2010
48. R.V. Filkoski, I.J. Petrovski, I. Janev: *A Case Study of Energy Management Improvement in Concrete Products Industry*, II Conference "Sustainable Development and Climate Changes SUSTAINNIS 2010", Nis, Serbia, 2010
49. L.J. Bureska, R.V. Filkoski, I.J. Petrovski: *Possible actions on boilers in TPP Bitola for reduction of NOx emission*, International Symposium ZEMAK 2010, Ohrid, 2010
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51. D. J. Tashevski, R. V. Filkoski: *Trigeneration power plants for complex buildings*, International Symposium ZEMAK 2010, Ohrid, 2010
52. R. V. Filkoski, L. J. Bureska, I. J. Petrovski: *Advanced Numerical Methods for Investigation of Energy Conversion Processes*, International Symposium "Power Plants 2010", Vrnjacka Banja, Serbia, 2010
53. R. V. Filkoski: *Energy efficiency and cleaner production – some experiences in Macedonia*, Seminar "Promotion of the CP concept", JICA Project, Skopje, 2010
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7) TRAININGS, WORKSHOPS

1. R. V. Filkoski: Energy efficiency in industry and services - Its real potential, Workshop "Opportunities for financing energy efficiency projects in Macedonia", Norsk Energi and Centre for Climate Changes – МК, Skopje, 1 February 2011
2. Филкоски Р. В., Енергетска ефикасност во индустријата - повеќекратни придобивки, Конференција на тема „Поттикнување на енергетската ефикасност во Република Македонија, Министерство за економија на Р. Македонија, Скопје, 12.09.2012
3. Серија работилници за енергетска ефикасност во индустријата, реализирани во рамките на проектот „Подобрување на енергетскиот менаџмент во македонската индустрија (Improving Energy Management at Macedonian Industry – IEM@MI, Implemented by CSO "Center for Climate Change" – Skopje, Project financially supported by The Royal Norwegian Embassy in Belgrade, 2014)
4. Обука за енергетски контролори за градежни објекти - досега се реализирани четири циклуси, 2014, 2015
5. Filkoski R. V., Seminar on energy efficiency and energy management practices in the companies from Southeast region of Macedonia, Needs, Barriers and Potentials for Realization of Energy

Efficiency practices in SMEs, IPA Cross Border Programme CCI No. 2007CB16IPO007, Gevgelija, 3 June 2015

6. Steam System Optimisation - Users Training, 9-11 November 2015
7. Steam System Optimisation - Experts Training, 12-16 November 2015
8. Steam System Optimisation - Users Training, 8-9 November 2016
9. Training on Natural Gas Utilisation for Final Users, Faculty of Mechanical Engineering, September, 2018