Curriculum Vitae Michael C. Georgiadis

Personal and Contact Details

Full Name	:	**Michael** Charalambous **GEORGIADIS**
Date of Birth	:	20 November 1969
Marital Status	:	Married with 2 Children
Department	:	Chemical Engineering, School of Engineering Aristotle University of Thessaloniki, Thessaloniki 54124, Greece
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Date of current Appointment	:	25 July 2015
Title of Current Appointment	:	Professor

Higher Education

1. Department of Chemical Engineering, Imperial College London, UK, 1995-1998 – **Ph.D.**
2. Department of Chemical Engineering, Imperial College London, UK, 1994-1995 – **M.Sc. (with distinction, 1st out of 21 students)**
3. Department of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece, 1987-1992 – **Diploma of Chemical Engineering** (1st Class Honours, graduated 3rd out of 140 students)

Previous Appointments / Honorary Appointments

- **Distinguished Visiting Professor,** Tsinghua University, 2017-2023.
- **Honorary Senior Research Fellow**, Department of Chemical Engineering, Imperial College London, 2016-2020.
- **Associate Professor**, Department of Chemical Engineering, Aristotle University of Thessaloniki, Greece, Jan. 2013 – July 2016
- **Honorary Research Associate**, Imperial College London, 2008-2012.

- **Associate Professor**. Department of Engineering Informatics, University of Western Macedonia, Kozani, Greece 2008-2012.
- **Manager of academic and research business development.** Process Systems Enterprise Ltd, UK, 2004-2008.
- **Adjunct Associate Professor**. Department of Mechanical Engineering, University of Western Macedonia, Greece (2004-2008).
- **Full Time Senior Researcher.** Head of the Computational Process Systems Engineering Laboratory, Centre for Research and Technology – Hellas (CERTH), Chemical Process Engineering Research Institute (CPERI), Thessaloniki, Greece 2000-2003.
- **Senior Process Modelling and Optimisation Engineer.** Process Systems Enterprise Ltd, London, UK (1998-2001).

Representative Plenary/keynote/invited Lectures

- CHISA2012 (Prague, Czech Republic). Keynote Lecture "*Modelling, Optimisation and Control of Drug Delivery Systems*".
- **2007 –** European Symposium on Computer-Aided Process Engineering-17 (Bucharest, Romania). Lecture: *"Advanced Process Control: From Theory to Practice" (with Prof. Stratos Pistikopoulos).*
- **2005** - European Symposium on Computer-Aided Process Engineering 15 (Barcelona, Spain),
- **2006 –** PRES'06 (Prague, Czech Republic). Invited Lecture: *"On the optimisation of hydrogen storage on metal hydride beds"*
- **Invited Speaker in the EURECHA workshop** "**NEW BOLOGNA THREE CYCLE STUDY PROGRAMS FOR PSE/CAPE"** *"Postgraduate Training and Research in CAPE/PSE through the European Marie Curie Programme"* Barcelona, May 2005.
- **2005 –** PSE-ASIA (Seoul, South Korea) – with Prof. E.N. Pistikopoulos.
- **2007** – Invited Speaker in the DECHEMA Conference, Germany. "*Towards Knowledge-Based Processing Systems"*, Wiesbaden, Germany.
- **2010** – PRES'2010 (Prague, Czech Republic). Plenary talk *"Modelling and Optimization Issues of the Energy Systems of Tomorrow"*.
- **Various awards for the best poster and oral in several international conferences as above.**

Involvement in Industrial Projects (representative)

- ***Consultant for Unilever.*** Imperial College Consultants, London, UK. Project title: *"Flexibility Analysis of a consumer goods Multi-product Batch Process", Jan 1996 – June 1996.*
- ***Consultant for ICI Chemical.*** Imperial College Consultants, London, UK. Project title *"Streaming and layout optimisation of a paint production plant"*. March 1997 – October 1997.
- ***Industrial Project with BP.*** **Process Systems Enterprise Ltd. London, UK.** Project title *"Dynamic Modelling and Optimisation of a petrochemical plant"*. 1998-1999.

- ***Industrial Project with Air Products.*** **Process Systems Enterprise ltd. London, UK.** Project title "*Dynamic Modelling and Optimisation of an air separation plant*". 1998-1999.
- ***Industrial Project with Mitsubishi Chemicals Co.*** **Process Systems Enterprise ltd. London, UK.** Project title "*Optimisation of a solvent production plant*". 1999-2000.
- ***Industrial Project with MORRIS, Nea Santa Kilkis, Greece.*** Project title " *Optimal Scheduling of assembling lines* ". 2000-2001.
- ***Industrial Project with KRI-KRI, Serres Greece.*** Project title "*Optimal Scheduling of yoghurt production Lines* ". 2009-2010.
- ***Senior Consultant for ATLANTIS Engineering Ltd, Thessaloniki, Greece***.

❑ *Activities:* Supply Chain Management and Optimisation; Production Scheduling and Planning; trim-loss minimisation in paper converting industries

Professional activities

- **Associate Editor, Coordinator of the Process Systems Engineering Area. Chemical Engineering Research and Design Journal, 2016-present.**
- **Co-Editor, 7-volume Book Series in Process Systems Engineering, WILEY-VCH (2006-2009). In collaboration with Imperial College London.**
- **Co-Chairman of the European Symposium on Computer-Aided Process Engienering-21, Chalkidiki, Greece, 29 May - 1 June 2011.**
- **International Conference Organization / members of scientific committes**: European Symposium of Computer Aided Process Engineering Conference Series (ESCAPE) (since 2003); European Federation of Chemical Engineering Conference (ECCE): ECCE-6 (Copenhagen, 2007); PSE2012; Process Integration, Modelling and Optimization Conference Series (PRES): PRES'03, PRES'04, PRES'05, PRES'06, PRES'07, PRES'08, PRES'09,PRES'10,PRES'11,PRE'S12, PSE2012, PSE2018.
- **Initiated, developed and conducted short courses for Industry & academic institutions** on Process Modelling, Optimization and control (2000-2013) – BP, Shell, , Air Products, over 20 top universities such as Ecole Polytechnique, DTU, Delft University, UCL, University of Manchesters, CPERI, etc.
- **External PhD. Examiner** – DTU (Denmark), University of Manchester (UK), University College London (UK), UPC (Spain), Abo Akademi University (Finland).
- **Regular Reviewer for over 20 journals from the PSE, Chemical Engineering and Operational Research areas**. Over 50 reviews for year 2016.
- **Evaluator of EC-funded Projects under the FP7 (2007-2014) and HORIZON2020 calls. Evaluation of over 200 proposals under the PEOPLE, NMP, HORIZON2020 and ENERGY Call. Evaluator of over 300 proposals with a total budget over 500 M€ (2008-2015)**
- Member – Greek Technical Chamber (since 1992), American Institute of Chemical Engineers (since 1995), Institute of Chemical Engineers, UK (since 1997).

Research Areas of Interest

- Energy Systems Engineering; Energy Planning and Scheduling.
- Energy Saving Techniques for the Process Industries.
- Supply Chain Network Design and Optimisation.
- Techniques for Project Scheduling.
- Advanced Process Control of Energy and Production Systems.
- Modelling , simulation and Dynamic Optimization of oil and gas processes.
- Computer-Aided Process Design and Synthesis.
- Design and scheduling of Batch and semi-continuous Processes, Production Planning. Emphasis on food, specialty chemicals and pharmaceutical processes.
- Optimisation and Control of Drug delivery systems.
- Modelling of Biological Systems.

Research & Research Management

- **Co-author of 1 reference book, 7 edited books, over 85 international peer reviewed journal publications (according to ISI and SCOPUS), over 130 refereed conference publications, over 16 Chapters in books & chapter contributions to encyclopaedias, over 3200 citations by other research groups worldwide.**
- Current research interests include (i) modelling, algorithms and computational tools for energy scheduling and planning (ii) optimisation of Supply Chains (iii) Modelling, design and optimisation of Gas separation processes
- Formulated, initiated and established an ongoing research programme on computational process systems engineering at the University of Western Macedonia, Greece.
- **Involved in over 17 research and industrial contracts** (1999-2017) as Coordinator and/or Principal Investigator.
- **Supervise 11 PhD students (8 of them graduated), co-Supervised 3 PhD students in collaboration with Imperial College London (2 of them graduated), 11 MSc students and associates, currently main supervisor of 6 PhD students and 2 Post Doctoral Researchers.**
- **Graduate PhD students (University of Western Macedonia)**
    - **Dr. Georgios Kopanos (2011) – UPC, Co-director of his PhD thesis**
    - **Dr. Pantelis Longinidis (2013)**
    - **Dr. Chrysa Ziogou (2013)**
    - **Dr. Thomas Thomaidis (2013)**
- **PhD students in the Department of Chemical Engineering at AUTH.**
    - Mr. Nikolaos Koltsaklis (Graduated in October 2015)
    - Mr. Georgios Nikolaidis (Graduated July 2017)
    - Magda Kalaitzidou (Graduated March 2017)

- Sideris Kiratsoudis (Graduated February 2017)
- Panagiotis Karakostas (expected to graduate 2018)
- Romuald Gyorgy (expected to graduate 2019)
- George Georgiadis (expected to graduate 2020)
- Apostolos Giovanoglou (expected to graduate in 2020-2021)
- Nikolao Koukouvinos (expected to graduate in 2020-2021)

❖ **Post Doctoral Researchers at AUTH**

- Dr. Pantelis Longinidis (2013 – current)
- Dr. George Kopanos (2018-current, part-time)

Representative EU Funded Collaborative Projects

1. Improved energy and resource efficiency by better coordination of production in the process industries (CoPro). HORIZON2020, SPIRE Programme (2016-2020). Involves 15 partners from Europe including leading industries. Budget for AUTH 380 K €.
2. Systematic Models for Biological Systems Engineering Training Network (SymBiosys), Contract Number. 675585, 2015-2019. A HORIZON2020 ETN. Budget for AUTH 249000€. In collaboration with Imperial College (coordinator). 2016-2020.
3. *"Efficient Energy Integrated Solutions for Manufacturing Industries"* (EFENIS) – Contract Number 296003. FP7 project of the Energy Programme. **Scientist in charge** at Aristotle University of Thessaloniki (AUTH). Budget for AUTH 240000 € (2012-2015).
4. *'Energy Systems Engineering (ESE)"(Contract Number 294987).* A Marie Curie IRSES project of the PEOPLE Programme. **Scientist in charge** at Aristotle University of Thessaloniki (AUTH). Budget for AUTH 95000 € (2012-2015).
5. "Distributed Knowledge-Based Energy Saving Networks" (DISKNET)*(Contract Number 294987).* A Marie Curie IRSES project of the PEOPLE Programme. **Scientist in charge** at Aristotle University of Thessaloniki (AUTH). Budget for AUTH 102000 € (2012-2015).
6. *Development of Efficient and Robust Controllers for Advanced Energy Systems (DECADE)* A Marie Curie IAPP Project of the FP7 People Programme. Contract Number 230659. **Project Coordinator (2009-2013).** Total Budget 675.000 EURO
7. *Design of Advanced Controllers for Economic, Safe and Robust Manufacturing Performance (CONNECT)"* A Co-operative research project in FP6. Contract Number 31638. **Project coordinator.** Total Budget 1,188,000 EURO (2006-2008).
8. *Development of Efficient and Robust Controllers for Advanced Energy Systems (DECADE)* A Marie Curie IAPP Project of FP7/People Programme. Contract Number 230659. **Project coordinator at University of Western Macedonia (2009-2013).** Total budget 655.000 Euros (195000 for University of Western Macedonia
9. *Development of Integrated Advanced Materials and Processes for Efficient Hydrogen Storage (DIAMANTE).* A Marie Curie Transfer of Knowledge Project of the FP6 Human

Mobility Programme. **Project coordinator (on behalf of PSE Ltd)**. (March 2005-March 2009). Contract Number MTKI-CT-2005-029544. Total budget 1.055.00 EURO.

10. *"Virtual Plant-Wide Management and Optimization of Responsive Manufacturing Networks (VIP-NET)"* EU GROWTH Programme in FP5. Contract Number: G1RD-CT-2000-00318, Chemical Process Engineering Research Institute, Thessaloniki, Greece. **Project coordinator.** Total Budget of the project 900.000 Euro (Jan 2001-Dec. 2004).
11. *"Modeling and Optimization of Industrial Absorption Processes (OPT-ABSO)"* EU GROWTH Programme of FP5. Contract Number: G1RD-CT-2001-00649. **Project Coordinator at** Chemical Process Engineering Research Institute, Thessaloniki, Greece, Budget 1,200,000 Euro (Jan 2002-Dec 2004).
12. *"Hybrid Hydrogen – Carbon Dioxide Separation Systems (HY2SEP)"*. A STREP EU Project in FP6. Contract Number: 019887. **Principal co-Investigator** at Imperial College London. Budget for Imperial College London 230.000 Euros (2005-2008).

Representative Collaborative Projects funded by the Greek government

1. "Development of a computational tool for integrated optimal knowledge management and production scheduling in dairy processing industries" ΠΑΒΕΤ-2013. In collaboration with MEBGAL S.A. and MIK-3 S.A. **Role: sub-contractor (service provider) on behalf of AUTH.** Budget for AUTH: 100000€ (2014-2015).
2. "Analysis of Supply and Production Systems: an Integrated Approach" **(2011-2015).** THALIS project. **Role: Leader** of one of the research teams involving 7 researchers. Total. Budget: 550000€.
3. "Post-Combustion Carbon Capture Using MOFs: Materials and Process Development" FENCO-NET project at CERTH. Coordinator: Prof. E.S. Kikkinidis. . Total Budget 100000€. **Role. Member of the research team** (2014-2015).

Teaching

- Independent teaching of 4 compulsory undergraduate courses at University of Western Macedonia:
    - Production scheduling and planning (2008-2013)
    - Supply chain networks design (2008-2013)
    - Operational Research (2008-2013)
    - Quantitate methods in decision making for the manufacturing industries (2007-2013)

- Independent teaching of 3 undergraduate courses at AUTH
    - Techniques for production scheduling (compulsory course)
    - Advanced methods for process synthesis and design (elective course)
    - Dynamic process modelling (compulsory course)

- Independent teaching of 1 compulsory courses at the Postgraduate course in the department of Economics, AUTH (2008-2011)

- Quantitate methods in supply chain design.

- Co-teaching of the compulsory course "Computers and Chemical Engineering" at AUTH.
- Played key role in formulating and developing a new M.Sc. course in computational process systems engineering at University of Western Macedonia and another M.Sc. course on Supply Chain Management and Optimisation (in collaboration with the Department of Economics at Aristotle University of Thessaloniki, Greece).
- Developed the first gPROMS training course on dynamic modelling of process systems and implement it in over 40 industrial and academic organisations (1998-2013).

Editorials

- **Guest co-Editor** of *Computers and Chemical Engineering*. Special issue on *Energy Systems Engineering*, Vol. 35/9, 2011.
- **Guest co-Editor** of *Computers and Chemical Engineering*. Special issue from the European Symposium on Computer-Aided Process Engineering, Vol. 42, 2011.
- **Guest co-Editor** of the ENERGY Journal. Special issue on Energy Systems Engineering, from the European Symposium on Computer-Aided Process Engineering, Vol. 44, 2012.
- **Co-editor** of a special issue "Energy Systems Engineering", Chemical Engineering Research and Design (with Prof. Pei Liu and Dr. Georgios Kopanos).

Research results

Books (see also www.wiley.com/go/PSE)

1. **M.C. Georgiadis** and E.N. Pistikopoulos (2006). "*Energy and process integration*" ***Reference Book***. Begell House Inc, Connecticut, USA. ISBN: 1-56700-228-5.
2. **Co-editor** (with Dr. Panos Seferlis) of the special Computer-Aided Chemical Engineering Book *"The Integration of Process Design and Control"* ELSEVIER B.V., May 2004, ISNB: 0-444-51557-7.
3. E.N. Pistikopoulos, **M.C. Georgiadis**, V. Dua (2007). *Process Systems Engineering. Volume I. Multi-parametric Programming: Theory, Algorithms and Applications.* WILEY-VCH, ISBN: 978-3-527-31691-5
4. E.N. Pistikopoulos, **M.C. Georgiadis**, V. Dua (2007). *Process Systems Engineering. Volume II. Multi-parametric Model-Based control: Theory and applications.* WILEY-VCH *ISBN*: 978-3-527-31692-2.
5. L.G. Papageorgiou and **M.C. Geogiadis** (2007). *Process Systems Engineering. Volume III. Supply Chain Optimization*, WILEY-VCH ISBN,: 978-3-527-31693-9.
6. L.G. Papageorgiou and **M.C. Geogiadis** (2007). *Process Systems Engineering. Volume IV. Supply Chain Optimization*, WILEY-VCH, ISBN: 978-3-527-31906-0
7. **M.C. Georgiadis**, E.S. Kikkinides (2008). *Process Systems Engineering. Volume V. Energy Systems Engineering*, WILEY-VCH, ISBN,: 978-3-527-31694-6.

8. **M.C. Georgiadis**, J.R. Banga, E.N. Pistikopoulos (2010).). *Process Systems Engineering. Volume VI. Dynamic Process Modelling, WILEY-VCH,* ISBN,: 978-3-527-31696-0.

9. **G.** Kopanos, P. Liu, M.C. Georgiadis (2016). Advances in Energy Systems Engineering. Springer ISBN-13: 978-3319428024

Selected Chapters in Books (after 2004)

1. P. Seferlis and **M.C. Georgiadis**, *"The Integration of Process Design and Control – Summary and Future Directions"*, In: The Integration of Process Design and Control", pp. 1-9, Elsevier, 2004. ELSEVIER, ISBN: 0-444-51557-7.

2. **Georgiadis M.C**. and P. Tsiakis. *"Resources Planning"*. "Computer-Aided Process and Product Design" (L. Puigjaner and G. Heyen, editors), Wiley-VCH, 2006, Publisher, ISBN: 3-527-30804-0.

3. **Georgiadis M.C**., M. Kostoglou and E. Kikkinides. *"Modelling Frameworks"* Computer-Aided Process and Product Design" (L. Puigjaner and G. Heyen, editors), Wiley-VCH Publisher, 2006, ISBN: 3-527-30804-0.

4. P. Dua and **M.C. Georgiadis**. *"Multi-parametric Mixed-Integer Linear Programming"*. In: "Multi-parametric programming: Theory, Algorithms and Applications" (E.N. Pistikopoulos, M.C. Georgiadis and V. Dua, editors), Wiley-VCH Publisher. ISBN: 978-3-527-31691-5 p 53-71.

5. V. Sakizlis and **M. C. Georgiadis**. *"Integration of Design and Control"*.In: "Multi-parametric model-based control: Theory and Applications" (E.N. Pistikopoulos, M.C. Georgiadis and V. Dua, editors), Wiley-VCH Publisher. ISBN: 978-3-527-31692-2, p. 135-171.

6. P. Dua and **M.C. Georgiadis**. *"Model based Control of a Pilot Plant Reactor"*. In: "Multi-parametric model-based control: Theory and Applications" (E.N. Pistikopoulos, M.C. Georgiadis and V. Dua, editors), Wiley-VCH Publisher. ISBN: 978-3-527-31692-2, p. 217-229.

7. **M.C. Georgiadis** and E.N. Pistikopoulos. *"Multi-Objective Energy and Environmental Analysis"*. In: "Multi-parametric programming: Theory, Algorithms and Applications" (E.N. Pistikopoulos, M.C. Georgiadis and V. Dua, editors), Wiley-VCH Publisher. ISBN: 978-3-527-31691-5, p. 255-305.

8. D. Narciso, N. Faisca, K. Kouramas and **M.C. Georgiadis**. *"Continuous-time Parametric Model Based Control"*. In: "Multi-parametric model-based control: Theory and Applications" (E.N. Pistikopoulos, M.C. Georgiadis and V. Dua, editors), Wiley-VCH Publisher. ISBN: 978-3-527-31692-2, p. 105-132.

9. N. Faisca and **M.C. Georgiadis**. *"Planning and Material Design under uncertainty"* . In: "Multi-parametric programming: Theory, Algorithms and Applications" (E.N. Pistikopoulos, M.C. Georgiadis and V. Dua, editors), Wiley-VCH Publisher. ISBN: 978-3-527-31691-5, p. 229-254.

10. P. Dua, **M.C. Georgiadis** and E.N. Pistikopoulos. *"Flexibility Analysis via Parametric Programming"*. In: "Multi-parametric programming: Theory, Algorithms and Applications" (E.N. Pistikopoulos, M.C. Georgiadis and V. Dua, editors), Wiley-VCH Publisher. ISBN: 978-3-527-31691-5. p. 175-228.

11. P. Tsiakis, **M.C. Georgiadis**, L.G. Papageorgiou *"Optimal Design of Supply Chain Networks using Mathematical Programming"* In: Supply Chain Optimization. (L.G. Papageorgiou and M.C. Georgiadis, editors) WILEY-VCH ISBN,: 978-3-527-31693-9.

12. **M.C. Georgiadis** and E.N. Pistikopoulos. *"Integrated Optimization of Oil and gas Processes"*. In: Energy Systems Engineering. (M.C. Georgiadis, E.S. Kikkinides and E.N. Pistikopoulos editors) WILEY-VCH, ISBN: 978-3-527-31694-6. p. 159-189.

13. E. S. Kikkinides, D. Nikolic, **M. C. Georgiadis**. Modelling of Pressure Swing Adsorption Systems. In: Dynamic Process Modeling. (M.C. Georgiadis, J.R. Banga and E.N. Pistikopoulos editors) WILEY-VCH, ISBN,: 978-3-527-31696-0.

14. C. Panos, K. Kouramas, **M.C. Georgiadis**, E.N. Pistikopoulos. Modelling and Control of PEM Fuel Cells. In: Dynamic Process Modeling. (M.C. Georgiadis, J.R. Banga and E.N. Pistikopoulos editors) WILEY-VCH, ISBN,: 978-3-527-31696-0.

15. Chrysovalantou Ziogou, Simira Papadopoulou, Efstratios Pistikopoulos, **Michael Georgiadis,** Spyros Voutetakis (2017). Model-Based Predictive Control of Integrated Fuel Cell Systems—From Design to Implementation. Advances in Energy Systems Engineering, 387-430. Springer International Publishing.

16. Nikolaos E Koltsaklis, Georgios M Kopanos, **Michael C Georgiadis** (2017). An Optimization Framework for Power Systems Planning Considering Unit Commitment Constraints. An Optimization Framework for Power Systems Planning Considering Unit Commitment Constraints. 433-474. Springer International Publishing.

17. George N Nikolaidis, Eustathios S Kikkinides, Michael C Georgiadis (2017). Modelling and Optimization of Pressure Swing Adsorption (PSA) Processes for Post-combustion CO2 Capture from Flue Gas. Process Systems and Materials for CO2 Capture: Modelling, Design, Control and Integration, 343-352. John Wiley & Sons.

18. Eleni Pefani, Eirini G Velliou, Nicki Panoskaltsis, Athanasios Mantalaris, **Michael C Georgiadis,** Efstratios N Pistikopoulos (2017). In silico Acute Myeloid Leukaemia. Modelling Optimization and Control of Biomedical Systems, 265-300, WILEY-VCH

19. Alexandra Krieger, Ioana Naşcu, Nicki Panoskaltsis, Athanasios Mantalaris, **Michael C Georgiadis**, Efstratios N Pistikopoulos (2017).l Volatile Aneasthesia, Modelling Optimization and Control of Biomedical Systems, 67-102, WILEY-VCH

20. Eirini G Velliou, Maria Fuentes-Gari, Ruth Misener, Eleni Pefani, Nicki Panoskaltsis, Athanasios Mantalaris, **Michael C Georgiadis**, Efstratios N Pistikopoulos (2017). An Integrated Platform for the Study of Leukaemia. Modelling Optimization and Control of Biomedical Systems, 225-232, WILEY-VCH.

Chapters in Encyclopaedias

1. R. Gani, A. Cameron, A. Lucia, G. Cin, **M. Georgiadis** (2012). Process Systems Engineering. Modelling and Simulation. *Ullmann's Encyclopaedia of Industrial Chemistry*. WILEY-VCH, **54 pages**, doi. 10.1002/14356007.o22_o06.

2. R. Gani1, M. R. Eden, T. Gundersen, **M. C. Georgiadis**, J. M. Woodley, T. Lopez-Arenas, M. Sales-Cruz, E. S. Perez-Cisneros, C. C. Solvason, N. G. Chemmangattuvalappil, , B C. Roughton, K. V. Camarda and E. M. Topp. Process Systems Engineering, 4. Process and Product Synthesis, Design, and Analysis. *Ullmann's Encyclopaedia of Industrial Chemistry*.WILEY-VCH, doi. **100 pages**, doi: DOI: 10.1002/14356007.o22_o08.

Journal Publications (as appeared in the ISI Web of Science)

1. **Georgiadis, M.C**., Rotstein, G.E. and Macchietto S., (1997).“Optimal Layout Design in Multipurpose Batch Plants’’, *Industrial Engineering Chemistry Res..,* **36**, 4852-4863.
2. **Georgiadis, M.C.** and Macchietto S., (1997). “ Layout of Process Plants: A Novel Approach’’, *Computers and Chemical. Engineering.,* **21**, 337-342.
3. **Georgiadis, M.C.,** Rotstein, G.E. and Macchietto S., (1998). “Modeling and Simulation of Shell and Tube Heat Exchangers under Milk Fouling’’, *AIChE Journal,* **44**, 959-971.
4. **Georgiadis, M.C.,** Rotstein, G.E. and Macchietto S., (1998). “Optimal Design and Operation of Heat Exchangers under Milk Fouling’’, *AIChE Journal,* **44**, 2099-2111.
5. **Georgiadis, M.C.,** Rotstein, G.E. and Macchietto S., (1998). “Modelling and Simulation of Complex Plate Heat Exchanger Arrangements under Milk Fouling” , *Computers and Chemical. Engineering.,* **22**, 331-338, (1998).
6. **Georgiadis, M.C.**, Rotstein, G.E. and Macchietto S., (1999). “Optimal Cyclic Cleaning Scheduling in Heat Exchanger Networks under Fouling”, *Computers and Chemical. Engineering.,* **23,** S203-S207.
7. **Georgiadis, M.C.,** and Pistikopoulos, E.N. (1999). An Integrated Framework for Robust and Flexible Process Systems. *Industrial Engineering Chemistry Res.,* **38**, (1), 133- 143.
8. **Georgiadis, M.C.,** Shilling, G., Rotstein, G.E. and Macchietto S., (1999) “ A General Mathematical Programming Approach for Process Plant Layout’’, *Computers and Chemical. Engineering.,* **23**, 823-840.
9. Georgiadis, M.C., and Macchietto, S., (2000) “Dynamic Modelling and Simulation of Plate Heat Exchangers under Milk Fouling”, *Chemical Engineering Science,* **55**, 1605-1619.
10. **Georgiadis, M.C.,** Papageorgiou, L.G., and Macchietto S., (2000). “Optimal Cleaning Policies in Heat Exchanger Networks under Rapid Fouling”, *Industrial Engineering Chemistry Res.,* **39,** 441-454.
11. **Georgiadis, M.C**. and Papageorgiou, L.G., (2000). “Optimal Cleaning and Energy Management in Heat Exchanger Networks under Fouling”, *Chem. Eng. Res. & Des.,* **78,** Part A, 168-179.
12. **Georgiadis, M.C**. and Papageorgiou, L.G., (2001). “Optimal Scheduling of Heat Integrated Multipurpose Plants under Fouling Conditions”, *Applied Thermal Engineering,* **21**, 1675-1697.
13. Schilling G., and **Georgiadis, M.C**., (2002). “An Algorithm for the Determination of Optimal Cutting Patterns”, *Computers and Operations Research,* **29/8**, 1041-1058.
14. Giannelos, N.F., and **Georgiadis, M.C.,** (2001). “Scheduling of Cutting-Stock Processes on Multiple Parallel Machines”, *Chem. Eng. Res. Des*., **79** (A7), 747- 753.
15. Giannelos N.F, and **Georgiadis, M.C.,** (2001). “A model for scheduling cutting operations in paper-converting processes”. *Industrial Engineering Chemistry Res.,* **40**, (24), 5752- 5757.
16. **Georgiadis, M.C.,** Schenk, M., Pistikopoulos, E.N., and Gani, R., (2002) “The Interactions of Design, Control and Operability in Reactive Distillation Systems’’. *Computers and Chemical. Engineering.,* **26**, 735-746.

17. **Georgiadis, M.C**., and Kostoglou, M., (2001). "On the Optimisation of Drug Release from Multi-Laminated Polymer Matrix Devices''. *Journal of Controlled Release,* **77/3**, 273-285.

18. Giannelos, N.F., and **Georgiadis, M.C**., (2002). "A Novel Event-Driven Formulation for Short-Term Scheduling of Multipurpose Continuous Processes". *Industrial Engineering Chemistry Res..,* **41**, 2431-2439.

19. Giannelos, N.F., and **Georgiadis, M.C.,** (2002). "A Simple New Continuous Time Formulation for Scheduling Multi-Purpose Batch Processes". *Industrial Engineering Chemistry Res.,* **41**, 2178-2184.

20. Giannelos, N.F. and **Georgiadis, M.C.,** (2003) "Efficient Scheduling of Consumer Goods Manufacturing Processes in the Continuous Time Domain" *Computers and Operations Research,* **30**, 1367-1381.

21. Vareltzis, P., Kikkinides, E.S. and **M.C. Georgiadis**. (2003) "Modelling and Optimisation of Zeolite Membranes for Gas Separations", *Chem. Eng. Res. Des.* **30**, Part A, 525-536.

22. **Georgiadis, M.C**., A. Lewis, P. Tsiakis, Y. Sanidiotis, C.C. Pantelides and L.G. Papageorgiou (2005). "Optimisation-based Scheduling: A Discrete Manufacturing Case Study". *Computers & Industrial Engineering,* **49**, 118-145.

23. Panjwani, P., M Schenk, **M. C. Georgiadis** and E N. Pistikopoulos (2005). "Process Design and Control of a Reactive Distillation System", *Engineering Optimization,* **37,** 733-753.

24. Proios, P., T. Y. Algusane, **M. C. Georgiadis** and E. N. Pistikopoulos (2006). "A Framework for the Synthesis of Reactive Absorption Columns", *Chemical Engineering and Processing,* **45**, 276-290.

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