

Publications Gustaf Olsson

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Book Chapters

- Olsson, G., Åmand, L., Rieger, L. and Carlsson, B. (2018). Aeration control – fundamentals. Chapter 4 in *Aeration, mixing and energy. Bubbles and sparks*. (D. Rosso, editor), IWA Publishing, London.
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- Olsson, G. (1970). Simplified Models of Xenon Spatial Oscillations. *Atomkernenergie*, 16, **2**, 91-98.

Other publications

- Olsson, G. (2017). To make water systems smarter and available for all, we need to get MAD. IWA Source Magazine, July 2017.

Invited presentations

2018

- Anaerobic digestion from an instrumentation and control perspective, 厌氧消解的仪器设备和工艺控制展望, Invited keynote presentation, National Biogas Conference, Hangzhou, China, 30 Oct. 2018
- Clean water using solar and wind. Invited lecture, School of Environment, Tsinghua University, Beijing, 24 Oct. 2018.

- Controlling urban drainage systems. Invited keynote presentation, IWA Urban Drainage Modelling (UDM) conference, Palermo, Italy, 24 Sep 2018.
- How to publish in style. Invited workshop on publication, IWA World Water Congress, Tokyo, Japan, 17 Sep 2018
- International Young Water Professionals (YWP) publication course, Aalto University, Helsinki, Finland, 21-24 August 2018.
- Digitization in wastewater systems – yesterday, today, tomorrow. Invited keynote, Swedish National Conference on Waste and Environment, 1 Feb 2018

2017

- Making water systems smarter and available for all. Invited keynote, 8th Int. IWA Young Water Professionals conference, Cape Town, South Africa, 12 Dec 2017.
- International Young Water Professionals (YWP) publication course, Cape Town, South Africa, 4-7 Dec. 2017.
- Making water operations smarter – forty years of ICA development. Chinese national workshop on Instrumentation, control and automation, Tsinghua University, Beijing, 11 Nov. 2017
- Water and energy: threats and opportunities. Invited keynote, 7th IWA-ASPIRE Conference 2017, Kuala Lumpur, Malaysia, 12 Sep. 2017.
- Writing and Publishing Scientific Papers: 5th IWA & UTM (Universiti Teknologi Malaysia) international course on scientific writing (together with Helmut Kroiss), Malaysia-Japan Int. Inst. of Technology (MJIT), Kuala Lumpur, Malaysia, 7-9 Sep. 2017.
- Instrumentation, control and automation in sustainable wastewater treatment making water operations smarter, Invited lecture series, The Lake Como School of Advanced Studies, Como, Italy, 21–25 Aug. 2017.
- The water-energy-food nexus: couplings and conflicts, Invited lecture series, The Lake Como School of Advanced Studies, Como, Italy, 21–25 Aug. 2017.
- The water-energy-food nexus - challenges and opportunities. Invited keynote, Int. Conf. on Energy, Ecology and Environment (ICEEE) 2017, Stockholm, Sweden, 27 July 2017.
- Making water operations smarter, Invited keynote, Frontiers International Conference on Wastewater Treatment, Palermo, Italy, 21 May 2017.
- Instrumentation, control and automation in wastewater systems. Lecture series in *Advanced Course on Innovative wastewater treatment and mathematical modelling*, May 17-20, 2017, University of Palermo, Italy
- Writing and Publishing Scientific Papers, A Masdar Institute Publications Course, Masdar Institute, Abu Dhabi, 26-29 March 2017.

2016

- Smart water utilities – complexity made simple. Invited seminar, CSIR Meraka Institute, Pretoria, South Africa, 29 August 2016.
- The value vs cost of water - Can we still afford free water for all? Invited keynote lecture, University of Johannesburg, South Africa, 29 August 2016.
- Smart water utilities – complexity made simple. Invited seminar, University of Kwa-Zulu Natal, Durban, South Africa, 25 August 2016.
- Young Water Professionals (YWP) publication course, University of Kwa-Zulu Natal, Durban, South Africa, 22-25 Aug. 2016.
- The water-energy nexus: Global conflicts and possible solutions. Invited seminar, Nelson Mandela University, Port Elisabeth, South Africa, 18 August 2016.
- Young Water Professionals (YWP) publication course, Nelson Mandela University, Port Elisabeth, South Africa, 15-18 Aug. 2016.
- Smart water utilities – complexity made simple. Invited seminar, University of Cape Town, Cape Town, South Africa 12 August 2016.
- Young Water Professionals (YWP) publication course, University of Western Cape, Cape Town, South Africa, 8-11 Aug. 2016.
- The water-energy-food nexus: Couplings and conflicts, Invited keynote, International seminar on *Innovative wastewater treatment technologies for energy saving and environmental protection*, University of Palermo, 20 May 2015.
- Lecture series on Instrumentation, Control and Automation in Wastewater Treatment. *Advanced Course on Innovative wastewater treatment and mathematical modelling*, University of Palermo, Italy, May 16-19, 2016.

Writing and Publishing Scientific Papers: 4th IWA & UTM (Universiti Teknologi Malaysia) international course on scientific writing (together with Helmut Kroiss), Malaysia-Japan Int. Inst. of Technology (MJIIT), Kuala Lumpur, Malaysia, 7-11 March 2016.

The water-energy-food nexus: Couplings and conflicts, Invited seminar, Aalto University, Espoo, Finland, 25 Feb. 2016.

2015

En forskares resa - från processtyrning till de globala utmaningarna (A researcher's journey – from process control to the global challenges), Invited lecture, the 25th anniversary of Swedish Water & Wastewater Association R&D fund, 2 Dec. 2015.

Smart water utilities – complexity made simple, Invited lecture, IWA Sweden, Stockholm, 18 Nov. 2015.

Water and Energy: Global conflicts and possible solutions, Invited seminar, Dalian University of Technology, Liaoning Province, China, 6 Nov. 2015.

Smart water utilities – complexity made simple, Invited seminar, University of Exeter, UK, 13 Oct. 2015.

Academic Writing and Publication, Invited lectures, TREATREC Advanced training course, Universitat de Girona, Catalonia, Spain, 15-18 September 2015.

Lecture series on Instrumentation, Control and Automation in Wastewater Treatment. Advanced Course on Innovative wastewater treatment and mathematical modelling, University of Palermo, Italy, May 7-9, 2015.

The climate-water-energy-food nexus: A key challenge for water professionals. Invited lecture, 2nd IWA Malaysia Young Water Professional Conference, Kuala Lumpur, Malaysia, 19 March 2015.

Writing and Publishing Scientific Papers: 3rd IWA & UTM (Universiti Teknologi Malaysia) international course on scientific writing (together with Helmut Kroiss), UTM, Johor Bahru, Malaysia, 12-14 March 2015.

2014

Water and energy linkages in power generation, Invited lecture, Powertricity Conference, World Energy Council, Dar Es Salaam, Tanzania, 4 Dec. 2014.

The water-energy-food nexus: Couplings and conflicts, Invited seminar, Guizhou Institute of Technology, Guiyang, Guizhou Province, China, 10 Nov. 2014.

The water-energy-food nexus: Couplings and conflicts, Invited seminar, School of Environment, Tsinghua University, Beijing, 29 Oct. 2014.

The water-energy-food nexus: Couplings and conflicts. Invited keynote, CRC (Cooperative Research Centre) for Water Sensitive Cities Conference, Melbourne, Australia, 21 Oct. 2014.

Water and Energy: Global conflicts and possible solutions. Invited seminar, Pusan National University, Busan, Korea, 14 Oct. 2014.

Water and Energy: Global conflicts and possible solutions, Invited presentation, Econity R&D Center, Seoul, Korea, 13 Oct. 2014.

Water and Energy: Global conflicts and possible solutions, Invited seminar, University of Exeter, UK, 7 Oct. 2014.

Potential for energy saving, avoidance and generation opportunities in the water cycle, Invited presentation, Workshop on Water and Climate, IWA World Water Conference, Lisbon, Portugal, 22 Sep. 2014.

Setting the scene: Energy – water – food. Invited lecture, Stockholm World Water Week, 3 Sep. 2014

Understanding the links: Energy generation – Water resources – Environment. Invited lecture, Stockholm World Water Week, 3 Sep. 2014.

Automation and control. Invited paper, IWA Int. Conference, Activated Sludge – 100 years and counting! Essen, Germany, June 12–14, 2014.

The Water-Energy-Food Nexus - Global conflicts and possible solutions. Invited lecture, iiESI European Workshop, Danish Technical University, Lyngby, Denmark, 27 May 2014.

The water-energy-food nexus: global couplings and conflicts. Invited lecture, Vanndagen (The global Water Day) 2014, Oslo, Norway, 20 March 2014.

Water and energy - How energy is used in water cycle operations and How water is used in energy production, Invited lecture, Università Degli Studi di Palermo, Palermo, Italy, 14 March 2014.

Control possibilities in wastewater treatment. Invited seminar, Università Degli Studi di Palermo, Palermo, Italy, 13 March 2014.

Young Water Professionals (YWP) publication course, University of Stellenbosch, South Africa, 3-6 Feb. 2014.

Water and energy linkages, Invited lecture, Stellenbosch Forum Lecture, Stellenbosch Institute for Advanced Studies (STIAS), Stellenbosch University, South Africa, 2 Feb. 2014.

Young Water Professionals (YWP) publication course, University of Venda, South Africa, 27-30 Jan. 2014.

Water and energy linkages, Invited seminar, Department of Science and Technology, Pretoria, South Africa, 24 Jan. 2014.

Young Water Professionals (YWP) publication course, University of Johannesburg, South Africa, 20-23 Jan. 2014.

2013

Water and energy linkages and collisions, Invited seminar, Cologne University of Applied Sciences, Köln, Germany, 25 Nov. 2013.

Writing and Publishing Scientific Papers, An invited workshop together with UTM Faculty, UTM, Johor Bahru, Malaysia, 11-13 Nov. 2013.

Writing and Publishing Scientific Papers, Invited course on journal publication, UTM (Universiti Teknologi Malaysia), Johor Bahru, Malaysia, 6-8 Nov. 2013.

Water and energy linkages, Invited seminar, School of Environment, Tsinghua University, Beijing, 22 Oct 2013.

Control problems in wastewater treatment. Invited seminar, University of Exeter, UK, 1 Oct. 2013.

Instrumentation, Control and Automation in wastewater – from London 1973 to Narbonne 2013. Invited keynote, IWA Int. Conference on Instrumentation, Control and Automation (ICA-2013), Narbonne, France, 18 Sep 2013.

Recent developments in energy production and their water implications – technical aspects, Invited paper, Stockholm World Water Week, 5 Sep 2013.

Water and Energy – Threats and Opportunities. Invited lecture, University Presidents Forum, Universiti Teknologi Malaysia (UTM), Johor Bahru, Malaysia, 5 May 2013.

The Water and Energy Nexus – New Business Opportunities, Invited keynote, Sustainable Business Summit, European Cleantech Cluster Forum, Dublin, Ireland, 22 April 2013.

Publishing – getting an impact and not only an impact factor, Invited seminar, Karlsruhe Inst. of Technology, Germany, 1 Feb. 2013.

Writing and Publishing Scientific Papers: 2nd IWA & UTM (Universiti Teknologi Malaysia) international course on scientific writing (together with Helmut Kroiss), UTM, Johor Bahru, Malaysia, 12-18 Jan. 2013.

Writing and Publishing Scientific Papers, Invited workshop on journal publication, UTM (Universiti Teknologi Malaysia), Johor Bahru, Malaysia, 9-11 Jan. 2013.

2012

The Water and Energy Nexus – Framing the Context, Invited lecture, European Environmental Agency (EEA), Copenhagen, Denmark, 13 Dec. 2012.

Water and Energy – challenges in biotechnology, Invited seminar, Department of Biotechnology, Tsinghua University, Beijing, China, 27 Nov. 2012.

Writing and Publishing Scientific Papers, Invited workshop on journal publication, UTM (Universiti Teknologi Malaysia), Johor Bahru, Malaysia, 10-11 Oct. 2012.

Water and Energy – threats and opportunities. Invited paper, Asiawater 2012, Kuala Lumpur, Malaysia, 29 March 2012.

Writing and Publishing Scientific Papers: An IWA & UTM (Universiti Teknologi Malaysia) international course on scientific writing (together with Helmut Kroiss), UTM, Johor Bahru, Malaysia, 18-24 March 2012.

2011

Writing and Publishing Scientific Papers: building your career, Invited lecture, Malaysia Young Water Professionals meeting, Kuala Lumpur, Malaysia, Nov 2011.

The urban water - energy nexus: energy efficiency along the water value chain, Invited paper, Stockholm World Water Week, Stockholm, Sweden, 24 Aug. 2011.

Energy Issues in Water and Wastewater Operations – Future trends, Invited keynote presentation, Water Malaysia 2011, Kuala Lumpur, April 5, 2011.

2010

Working Water and Energy together – maximizing the networks, Invited paper, *Water, Climate and Energy Workshop*, IWA Biennial Conference, Montreal, Canada, 22 Sep 2010.

Water and Energy Efficiency – a close link, Invited keynote, 1st IWA Malaysia Young Water Professionals Conference 2010, Kuala Lumpur, Malaysia, March 2-4, 2010.

2008

Water and Energy - Linkages and Technology Challenges, Invited keynote, International Conference & Expo on Environmental Management and Technologies, *ICEEMAT* 2008, Kuala Lumpur, Malaysia, Dec 10-12, 2008.

Automation development in water and wastewater systems. Invited seminar, University of Tokyo, Japan, 16 Sep. 2008.

Water – energy linkages and technology challenges. Invited seminar, University of Tokyo, Japan, 16 Sep. 2008.

Water - Energy Linkages and Technology Challenges, Invited presentation, Conference on “In Search of Sustainable Well-Being”, Tokyo, Sep. 12-13, 2008.

2007

Water and Energy – some global and some technical aspects, Invited seminar, UNESCO-IHE, Delft, The Netherlands, 12 Dec. 2007.

Water and energy in wastewater treatment, Invited seminar, Tsinghua University, Beijing, China, Nov. 2007.

Water and Energy – some Global Aspects, Invited seminar, Tsinghua University, Beijing, China, Nov. 2007.

Automation Development in the Water and Wastewater Industry, Invited presentation, 1st Mediterranean Congress on Chemical Engineering for Environment, Venice, 6 Oct. 2007.

2006

Biological Nutrient Removal without Mixing Energy. Invited presentation, Workshop on Energy Savings through Better Design, Control and Optimization: US and International Experiences and Insights, Water Environment Federation, USA, 22 Oct. 2006.