

# CURRICULUM VITAE

## PERSONAL INFORMATION

**DR. FATEHAH BINTI MOHD OMAR**

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Email : [fatehahomar@yahoo.com](mailto:fatehahomar@yahoo.com)  
D.O.B/Place : 27<sup>th</sup> February 1981, United States  
Nationality : Malaysian  
Status : Married

## PROFESSIONAL EXPERIENCE

Sept 2015 - current	<b>Organization :</b> School of Civil Engineering, Engineering Campus, Universiti Sains Malaysia, Malaysia <b>Position:</b> Lecturer
2012	<b>Organization:</b> Permanent Mission of Malaysia, Geneva, Switzerland <b>Position:</b> French Teacher (part-time/personal tutoring) <ul style="list-style-type: none"><li>• Engaged in teaching French lessons for Malaysians</li><li>• 3 months</li></ul>
2007 – 2009	<b>Company:</b> WNA Consultant Sdn Bhd  <b>Position:</b> Assistant Resident Engineer (ARE) for Environmental, Safety and Traffic Management <b>Project:</b> Highway Construction PLPT2: Package 3 CH26100 (Ladang Ketengah) to CH40038 (Ladang Penyelidikan MARDI) (3 months) <ul style="list-style-type: none"><li>• Supervised contractor relevant to EHS and traffic issues, checked technical reports before submission to JKR</li><li>• Supervised audit relevant to EHS</li></ul> <b>Promoted:</b> Project Coordinator <b>Project:</b> Stormwater Management and Drainage Master Plan Study on the town of Seri Kembangan, Selangor and Sungai Besi, Kuala Lumpur <ul style="list-style-type: none"><li>• Team management, delegation of tasks, networking, data collection &amp; documentation, technical report analysis, report write-up and compilation.</li></ul>
2006	<b>Company:</b> Advanced Micro Devices Export Sdn Bhd <b>Position:</b> Environmental Engineer <ul style="list-style-type: none"><li>• Research &amp; development on semiconductor wastewater treatment, wastewater monitoring &amp; analysis</li><li>• Preparation and submission of contravention license to DOE</li></ul>
2006 (weekends)	<b>Organization:</b> Universiti Sains Malaysia <b>Position :</b> Environmental Trainer <b>Client :</b> KOMAG-USA <b>Program :</b> EMS & RA

2005 – 2006	<p><b>Organization :</b> Universiti Sains Malaysia  <b>Position:</b> Research Officer  <b>Projects:</b></p> <ul style="list-style-type: none"> <li>• Elicitors Precursors Enhanced Production of Limonene</li> <li>• Water Monitoring &amp; Analysis on Water Quality for Pinang River Basin</li> <li>• Treatment of Silica Wastewater</li> <li>• Environmental, Health &amp; Safety Audit for Beris Dam</li> </ul>
2002 – 2005	<p><b>Company :</b> Universiti Sains Malaysia  <b>Position:</b> Tutor</p> <ul style="list-style-type: none"> <li>• Basic Calculations in Chemical Engineering (1<sup>st</sup> year)</li> <li>• Design in Industrial Water Treatment (2<sup>nd</sup> year)</li> <li>• Unit Operation I : Fluid Mechanics (1<sup>st</sup> year)</li> <li>• Unit Operation II : Heat Transfer (2<sup>nd</sup> year)</li> </ul>
<p><b>Consultation</b> (Co-Researcher)</p>	<p><b>Projects:</b></p> <p>2007 Environmental Impact Assessment for the Proposed Limestone Quarry at Gunung Inas, Kedah Darul Aman, <b>for ERAPAC Sdn Bhd</b></p> <p>2007 Study on Chemical and surface runoff wastewater composition and treatment for <b>Kualiti Alam</b>, Bukit Nenas, Negri Sembilan</p> <p>2006 Due Diligence Audit on soil and groundwater contamination for <b>Advanced Micro Devices Export Sdn. Bhd., Bayan Lepas Industrial Zone, Penang</b></p> <p>2005 Study on Water and sediment contamination from Sungai Pinang for the Sungai Pinang Rehabilitation and Conservation project under <b>Department of Irrigation and Drainage and Jurutera Perunding Zaaba</b></p> <p>2005 Environmental Impact Assessment On The Proposed Sand Sourcing off the coast of Tanjung Dawai, Kedah Darul Aman, under <b>Agsonics Sdn Bhd</b></p> <p>2004 Environmental Impact Assessment On The Proposed Sand Sourcing off the coast of Tanjung Tokong, Penang, under <b>Selat Adabi Sdn Bhd, Penang</b></p> <p>2004 Environmental Impact Assessment On The Proposed Development Of Marine Infrastructure To Encourage Boating And Marina Industry At Church Street Pier, Pengkalan Weld, Penang Port. For <b>Stracap Holdings Sdn Bhd, Penang</b></p> <p>2004 Due diligence audit on a decommissioned textile industry in Bayan Lepas Industrial Zone, Penang. For <b>Eastern Garments Sdn Bhd, Bayan Lepas Industrial Zone, Penang</b></p> <p>2003 Due Diligence Audit on a decommissioned semi conductor industry in Bayan Lepas, on environmental management, soil and groundwater contamination, for <b>Advanced Micro Devices, Bayan Lepas Industrial Zone, Penang</b></p> <p>2002 Environmental Audit of Soil Contamination at <b>Malaysian Circuit</b></p>

	<p align="center"><b>Industries Sdn. Bhd., Bayan Lepas Industrial Zone, Penang.</b></p> <p>2002 Chemical and Environmental Risk Assessment on a Chemical Resin Plant for <b>Merbok MDf Plant</b> in Merbok, Kedah Darul Aman.</p>
<b>Freelance</b>	<p>Interpreting and translating Chemical Safety Data Sheet</p> <p><b>Previous Clients:</b></p> <ul style="list-style-type: none"> <li>• Mattel (M) Sdn. Bhd,</li> <li>• Mattel Tools (M) Sdn. Bhd.</li> <li>• AIC Semiconductor Sdn. Bhd.</li> <li>• The Pheonix Press Sdn. Bhd.</li> <li>• Advanced Micro Devices Export Sdn. Bhd.</li> </ul>

## EDUCATION

- 2010 - 2015** Ph.D (Environmental Science), University of Geneva  
\*distinction *summa cum laude*
  - 2004 - 2007** M.Sc.(Wastewater Treatment), Universiti Sains Malaysia  
\*distinction No. 2
  - 2000 - 2004** B.Tech (Environmental Technology), Universiti Sains Malaysia
  - 1999** Science Matriculation, Universiti Sains Malaysia
  - 1994 - 1998** St. George's Girls School
- **Assistant Consultant DOE Registration no. :** AC0819  
(Water Quality, Scheduled Waste Management, General Environmental Management)

## PUBLICATIONS

N.A. Nik Norulaini, Anees Ahmad, **Fatehah Mohd Omar**, Adel Ashur S. Banana, I.S. Md. Zaidul, Mohd. Omar Ab. Kadir, 2008, *Sterilization and extraction of palm oil from screw pressed palm fruit fiber using supercritical carbon dioxide*, Separation and Purification Technology, Vol. 60(3), pg. 223-352.

**Fatehah Mohd Omar**, Nik Norulaini Nik Abdul Rahman and Anees Ahmad, 2008, *COD Reduction in Semiconductor Wastewater by Natural and Commercialized Coagulants Using Response Surface Methodology*, Water, Air, & Soil Pollution, Vol. 195, pg. 345 -352.

Norulaini N.A.N., Anuar O., Abbas F.M.A, **Fatehah M.O.**, Omar A.K.M., Sahena F., Zaidul I.S.M., 2009, *Optimization of supercritical CO2 extraction of Anastatica Hierochuntica*, Food and Bioproducts Processing, Vol. 87, pg. 152-158.

Norulaini N.A.N., Anuar O., Omar A.K.M., Abbas F.M.A, Setianto W.B., **Fatehah M.O.**, Sahena F., Zaidul I.S.M., 2009, *Optimization of SC-CO2 extraction of zerumbone from Zingiber zerumbet (L) Smith*, Food Chemistry, Vol. 114 (2), pg. 702-705.

**Fatehah Mohd Omar**, Md. Sohrab Hossain, Tjoon Tow Teng, 2013, *Comparative Study on Natural and Commercial Coagulants: Treatment of Semiconductor Wastewater in Sludge Production and Removal of Heavy Metals*, International Journal of Innovative Science and Modern Engineering, Vol. 1/7, pg. 1-8.

**Fatehah Mohd Omar**, Hamidi Abdul Aziz, Serge Stoll, 2014, *Aggregation and Disaggregation of ZnO Nanoparticles: Influence of pH and Adsorption of Suwannee River Humic Acid*, *Science of the Total Environment*, Vol. 468-469, pg. 195-201.

**Fatehah Mohd Omar**, Md. Sohrab Hossain, Tjoon Tow Teng, 2013, *Semiconductor Wastewater Treatment using Tapioca Starch as a Natural Coagulant*, *Journal of Water Resource and Protection*, Vol. 5, pg. 1018-1026.

**Fatehah Mohd Omar**, Hamidi Abdul Aziz, Serge Stoll, 2014, Nanoparticle Particles, Behavior, Fate in Aquatic Systems and Characterization Methods, *Journal of Colloid Science and Biotechnology*, Vol. 3 (2), pg. 1-30.

**Fatehah Mohd Omar**, Hamidi Abdul Aziz, Serge Stoll, 2014, Stability of ZnO Nanoparticles in Solution. Influence of pH, Dissolution, Aggregation and Disaggregation Effects, *Journal of Colloid Science and Biotechnology*, Vol. 3 (1), pg. 1-10.

Frédéric Loosli, **Fatehah Mohd Omar**, Fabrice Carnal, Olena Oriekhova, Arnaud Clavier, Zhi Chai, Serge Stoll, 2014, *Manufactured Nanoparticle Transformations in Aquatic Systems. Importance of Natural Organic Matter*, *Chimia*, Vol. 68, pg. 783-787.

Nik Norulaini Nik Abd. Rahman, Mohammad Shahadat, Chew Ann Won, **Fatehah Mohd Omar**, 2014, FTIR study and bioadsorption kinetics of bioadsorbent for the analysis of metal pollutants, *RSC Advances*, Vol. 4 (102)

**Fatehah Mohd Omar**, Hamidi Abdul Aziz, Serge Stoll, Agglomeration, Disagglomeration and Stabilization of ZnO Nanoparticles in Aquatic Systems: **Influence of pH, Natural Organic Matter and Ionic Strength**, *Submitted to Science of the Total Environment*, 2015.

## CONFERENCES/PROCEEDINGS

F.N.M. Saad, N.N.N.R. Rahman, M.O.A. Kadir, **F.M. Omar**, 2006, *Identification of pollution sources within the Sungai Pinang river basin*, in : H. Mokhlis (Ed.), *Proceeding of the Malaysian Research Group International Conference*, Manchester, United Kingdom, pp. 478-485.

**Fatehah Mohd Omar**, Hamidi Abdul Aziz, Serge Stoll, 2014, Behavior of ZnO Nanoparticles in Aqueous Environments: Influence of pH and Adsorption of Humic Acid, *Advanced Material Research*, Vol. 832, pg. 728-733.

**Fatehah Mohd Omar**, Hamidi Abdul Aziz, Serge Stoll, 2014, Aggregation and Disaggregation of ZnO Nanoparticles: Influence of pH and Alginate Concentration, *International Journal of Chemical & Environmental Engineering*, Vol. 5 (3), pg. 172 -175.

**Fatehah M.O.**, Stoll S.S., Hamidi A. A., 2012, Humic Acid Influence on the Stability and Surface Charge Properties of ZnO Nanoparticles, 9<sup>th</sup> International Symposium on Polyelectrolytes – ISP 2012, 9<sup>th</sup>-12<sup>th</sup> July 2012, University of Lausanne, Switzerland.

## REVIEWED ARTICLES

**Manuscript Title:** Bio-treatment of high phenol concentrations with low-strength phenol-acclimated activated sludge

**Journal :** The Korean Journal of Chemical Engineering

**Date :** 9 September 2012

**Manuscript Title:** Treatment of sugar beet extraction juice stillage by natural coagulant extracted from common bean

**Journal :** Ecological Engineering

**Date :** 16 July 2012

**Manuscript Title:** Optimization of the coagulation-flocculation process for treatment of wastewater using Polymeric Ferric Sulfate (PFS) - Poly-diallyldimethyl ammonium Chloride (PDADMAC) composite coagulant

**Journal :** The Korean Journal of Chemical Engineering

**Date :** 8 February 2012

**Manuscript Title:** Monitoring of Dissolved Oxygen by Using Cascade Aerator for Removing Iron and Manganese

**Journal :** International Journal of Scientific Research in Knowledge

**Date :** 18 April 2016

**Manuscript Title :** A Review Regarding Treatment of Water Using Composite Adsorbent

**Journal :** International Journal of Scientific Research in Knowledge

**Date :** 18 April 2016

## RESEARCH GRANT

<b>Sponsor</b>	:	International Foundation for Science (IFS), Sweden
<b>Project Title</b>	:	Importance of Flocculation Processes on the Fate and Transport of Nanoparticles in Natural and Water Treatment Processes
<b>Amount</b>	:	USD 10533
<b>Duration</b>	:	May 2013 – April 2015
<b>Sponsor</b>	:	Swiss State Secretariat for Education, Research and Innovation (SERI), Switzerland - Conference and workshop grants
<b>Project Title</b>	:	Workshop on Principles of (Nano)particle Aggregation and Removal in Water Treatment
<b>Amount</b>	:	CHF 4000
<b>Duration</b>	:	16 <sup>th</sup> Dec 2014 – 30 <sup>th</sup> Mar 2016
<b>Duration</b>	:	1 day
<b>Sponsor</b>	:	Short Term Research Grant (Universiti Sains Malaysia)
<b>Project Title</b>	:	Importance of Flocculation Processes on the Fate and Transport of Nanoparticles in Natural and Water Treatment Processes
<b>Amount</b>	:	RM 36,000
<b>Duration</b>	:	22 <sup>nd</sup> Mar 2016 – 28 <sup>th</sup> Feb 2017

## TRAINING

Certificate in **River Basin Modelling for NAHRIM Professionals**, Institute of Water Modelling (IWM), Bangladesh, 19th – 23rd January 2015

Certificate in **Dynamic Light Scattering : In-depth understanding of Nano Particle Size and Zeta Potential Analysis** by DKSH, USM-IPPT, 16th December 2014

Attendance certificate in **Certified Environmental Professional In The Operation of Industrial Effluent Treatment Systems – Biological Processes (CePIETSO-BP)**, INSTEP, Terengganu, 16<sup>th</sup> – 21<sup>st</sup> October 2011

Certificate in **Research Methodology Course Series 1**, 25 Julai 2011 hingga 29 Julai 2011, Universiti Sains Malaysia

Certificate in **“General Translation”**, 25<sup>th</sup> May – 25 July 2009, National Institute of Translation Malaysia (ITNM)

Certificate in **“Environmental Impact Assessment for Petrochemical Industry Training”**, Environmental Management and Research Association of Malaysia (ENSEARCH), 8<sup>th</sup> April 2009

Certificate in **“Environmental Impact Assessment for Infrastructure Development Training”**, Environmental Management and Research Association of Malaysia (ENSEARCH), 31<sup>st</sup> March 2009

Certificate in **“General Principles of Environmental Impact Assessment Training”**, Environmental Management and Research Association of Malaysia (ENSEARCH), 11<sup>th</sup> March 2009

Certificate in **“Occupational, Safety and Health Officer (CiSHO)”** by Federation of Malaysian Manufacturers (FMM) is association with National Institute of Occupational, Safety & Health (NIOSH) – completed in February 2009

Training on **“Modeling Water Quality in Infoworks River Systems (RS)”**, by Wallingford Software, 25 – 28 November 2008, Department of Irrigation and Drainage, Penang, Malaysia

Training on **“Engineering Risk Assessment Techniques And Tools”**, 27<sup>th</sup> March 2008, EiCO Educational Researchers & Consultants, Permata Room, Hotel Istana Kuala Lumpur.

Workshop on **“Automation in Water & Wastewater Treatment System”**, 25<sup>th</sup> & 26<sup>th</sup> March 2008, Institut Pengurusan Alam Sekitar & Sumber Air, Universiti Teknologi Malaysia, Business and Advanced Technology Centre, UTM City Campus, Kuala Lumpur.

Training on **JKR EMS & Erosion and Sediment Control Plan (ESCP)**, 12 September 2007, Cawangan Alam Sekitar & Tenaga, Ibu Pejabat JKR Malaysia, Bilik Rafflesia, Menara Tun Ismail Mohamed Ali, Jalan Raja Laut, Kuala Lumpur.

Seminar on Variable Pressure Field Emission Scanning Electron Microscope (FESEM) & Energy Dispersive X-Ray Spectrometer (EDS), Universiti Sains Malaysia

Seminar on **“Practical Aspects of Gas Chromatography”**, Agilent Technologies, 29 June

2004, Grand Plaza Parkroyal (Penang)

Seminar on “**Chromatography-Methods Development & Troubleshooting**”, Agilent Technologies, 3rd March 2004, Holiday Villa Subang, Vintage Ballroom, Selangor

**Operation And Maintenance of Industrial Wastewater Treatment Plants To Ensure Compliance With Regulatory Standards**, Universiti Sains Malaysia and Department of Environment, 14-17 January 2002, Copthorne Orchid Hotel, Penang

**Seminar On Sustainable Industrial Management**, Department of Environment, 6-7 October 2003, Hotel Equatorial, Pulau Pinang.

## ADDITIONAL INFORMATION

### INSTITUTE REPRESENTATIVE

Participated in the 44th International Exhibition of Inventions Geneva, at Palexpo, Geneva, Switzerland, 13th – 17th April 2016.

Innovative Products : Nexus, NLOC & Newton

### ORGANIZER

1 day ‘Workshop on Nanoparticles in the Environment’, School of Civil Engineering, Universiti Sains Malaysia and University of Geneva, Switzerland, 30th March 2016. Science and Engineering Research Centre, Universiti Sains Malaysia.

### INSTRUMENTATION SKILLS

- In-situ analysis (i.e. pH, temp, conductivity etc.)
- BOD analysis
- COD analysis
- Turbidity analysis
- Oil and Grease
- Suspended Solids Analysis
- Heavy metal analysis using Atomic Absorption Spectrometry
- Zetasizer Nano ZS (Dynamic Light Scattering)
- NanoSight (Nanoparticle Tracking Analysis)

### LANGUAGE

	<b>Spoken</b>	<b>Written</b>	<b>Remark</b>
• Bahasa Malaysia	Excellent	Excellent	Mother tongue
• English	Excellent	Excellent	Mother tongue
• French	Inter/Adv	Inter/Adv	Defl Dalf, & Univ. of Geneva (B2)
• Mandarin	Beginner	Beginner	Level 2 – USM

### HOBBIES

- Reading
- Travelling

## REFERENCES

- 1. Professor Teng Tjoon Tow**  
Senior Lecturer,  
School of Industrial Technology  
USM, 11800 Penang  
Contact: 604-653 3888 ext. 2215  
Email: [ttteng@usm.my](mailto:ttteng@usm.my)
- 2. Puan Jariyah Hashim**  
Former Director  
Environmental, Health & Safety  
Advanced Micro Devices Sdn Bhd  
Free Industrial Zone, Bayan Lepas  
11900 Penang  
Contact: +6012 498 0266
- 3. Dato' Ir. Wan Nazari Wan Jusoh**  
Managing Director  
WNA Consultant Sdn Bhd  
Kelana Jaya, 47301 P.J.  
Selangor D.E.  
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- 4. Professor Dr. Ahmad Farhan Mohd Sadullah**  
Assistant Vice Chancellor  
Universiti Sains Malaysia,  
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- 5. Professor Dr. Hamidi Abdul Aziz**  
Former Co-Supervisor  
School of Civil Engineering, USM,  
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Penang,  
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- 6. Dr. Serge Stoll**  
Former Supervisor  
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