Dr. Fauzi Baharudin

Position in UiTM	**Senior Lecturer**
Profession:	Civil Engineer
Qualifications:	PhD (Civil Engineering) - UiTM Master of Science of Civil Engineering (Hydrology and Water Resources) – USM Bachelor of Civil Engineering (Hons) – USM
Working Experience	Universiti Teknologi Mara (UiTM) – 2009 to present GHD Perunding Sdn Bhd – 2007 to 2009

Dr. Fauzi Baharudin is a Senior Lecturer at School of Civil Engineering, Universiti Teknologi Mara (UiTM), Shah Alam. His key teaching area is in water resources as well as environmental engineering and has experience in design, management, supervision and reports on water and hydrological works. In addition, he is registered as a Graduate Engineer with the Board of Engineers Malaysia (BEM) and Institution of Engineers Malaysia (IEM).

Key Experience

- Experience in hydrological analysis
- Experience in groundwater studies
- Experience in water and wastewater treatment

Research Experience

Utilization of Moringa Oliefira/Activated Carbon/Microcrystalline Cellulose Core Shell Nanocomposite As Adsorbent Material For Water Treatment Process (2023)

- Grant: UMP
- Funding: RM 29,970
- Duration: 2 years

Dispersion of Soil Particles via Multi-propagation Vibration (2016)

- Grant: FRGS
- Funding: RM 109,200
- Duration: 2 years

Best Practices (BPS) On Open Ended Laboratory (OEL) Implementation for Civil Engineering Subjects (2016)

- Grant: ARAS (UiTM)
- Funding: RM 10,000
- Duration: 2 years

Effective Subsurface Mechanical Clogging Dispersion Model (2012)

- Grant: RAGS
- Funding: RM 80,000
- Duration: 2 years

Ionic Composition of Fog at Equatorial Climate High Land Area (2011)

- Grant: FRGS
- Funding: RM 90,000
- Duration: 2 years

Water Losses in UiTM Distribution Network (2010)

- Grant: Dana Kecemerlangan UiTM
- Funding: RM6,000
- Duration: 1 year

Consultancy Experience

Optimization of Small Sewage Treatment System (SSTS) (2023)

- Client: Hadid Green Sdn Bhd
- Project cost: RM 3,600

Kajian Lanjutan Berkenaan Pengurusan Aktiviti Akuakultur Udang Laut Untuk Lembaga Urus Air Selangor (2014)

- Client: LUAS
- Project cost: RM 69, 320.68

Kajian Penyediaan Garis Panduan Aktiviti-Aktiviti Rekreasi Air Untuk Lembaga Urus Air Selangor (2014)

- Client: LUAS
- Project cost: RM 82,320.68

Kajian Kesan Aktiviti Akuakultur Udang Laut Kepada Pencemaran Sumber Air dan Ekosistem Alam Sekitar (2013)

- Client: LUAS
- Project cost: RM 100,000

Preparation of Action Plan and Quality Control for Muar River Basin, Johor (2012)

- Client: JPS Johor
- Project cost: RM 298.018.64

Preparation of Initial Risk Assessment (IRA) for Kuala Selangor and Sabak Bernam (2012)

- Client: LUAS

- Project cost: RM 49,981.81

Development of Online Monitoring Instrument and Fund Management for MOHE(2012)

- Client: MOHE

- Project cost: RM 170,000

Preparation of Manuscript of "The History of Water in Malaysia" (2010)

- Client: Puncak Niaga Sdn Bhd

- Project cost: 45,000

Optimization of Sewage Treatment Plant (2010)

- Client: Indah Water Konsortium (IWK)

Feasibility Study of Baleh Hydroelectric Project, Sarawak (2009)

- Client: Sarawak Energy Berhad (SEB)

- The project is the continuation from the feasibility study before. The study team has identified one suitable site for further study.

- Assisting in hydrological analysis. Verifying the flow at the dam site by doing river gauging at the preferred dam site and developed new rating curve for the river.

Pre-Feasibility Study of Baleh Hydroelectric Project, Sarawak (2009)

- Client: Sarawak Energy Berhad (SEB)

- The study is aimed to develop and finding sources for renewable energy in Sarawak.

- Assisting in catchment delineation and hydrological analysis.

Detailed Design of Stormwater Management Facilities for Sungai Petani, Kedah (2008)

- Client: JPS

- Involved in hydrologic analysis (Rational Method,Time-Area Method, T_c estimates)

- Rainfall and flood frequency analysis

- Catchment modelling using XP-SWMM, HEC-HMS and HEC-RAS

The Feasibility Study of Jedok Reservoir, Kelantan (2008)

- Client: BPSP, Ministry of Agriculture
- The objective of the study is to investigate whether it is feasible to build a reservoir for Lawang Irrigation Scheme.
- Storage-Yield analysis for the reservoir.
- Water balance study for paddy irrigation and reservoir storage regulation.
- Low flows analysis using Hydrological Procedure No 12.

Hydrology Study for Loji C, Felda Sahabat, Sabah (2007)

- Client: FELDA
- The study is aimed to investigate whether there is enough water to retain for water supply.
- Storage-Yield analysis
- Rainfall and catchment yield analysis

Publications

F Baharudin, NS Zainuddin, N Hamzah, J Kassim, J Jani (2023). *Quantification of Pathogenic Microorganisms in River and Groundwater Samples at Riverbank Filtration (RBF) Site*. Bioresources and Environment 1(3), 156-165

F Baharudin, NFH Mohd Adlan, J Kassim, N Hamzah (2023). *Effect of Heating, Ventilation, and Air Conditioning (HVAC) system on indoor air quality in a medical facility*. Journal of Sustainable Civil Engineering & Technology 2 (2), 80-90

AS Shukri, **F Baharudin**, J Kassim, NAF Mohd Kamil, N Hamzah (2023). *Performance of plant-based coagulants in removing turbidity and Chemical Oxygen Demand (COD) in industrial wastewater: A systematic review and meta-analysis*. Journal of Sustainable Civil Engineering & Technology 2 (2), 91-103

F Baharudin, J Jani, LW Koon, R Jailani (2023). *Improvement of groundwater abstraction through application of ground vibration*. AIP Conference Proceedings, 2571

NSA Halim, N Hamzah, **F Baharudin**, NS Zainuddin, NL Rahim, NAFM Kamil, NA Akbar, NSM Zin (2023). *Improving Iron and Copper Uptake by Changing the Ratios in Root of Vetiver Grass*. IOP Conference Series: Earth and Environmental Science 1216 (1), 012041

F Baharudin, I Zailani, N Hamzah, ZZM Zaki, IN Mohamad (2023). *Assessment of river water quality improvement due to riverbank filtration (RBF) mechanism*. IOP Conference Series: Earth and Environmental Science 1205 (1), 012008

N Amiruddin, NA Rozamri, **F Baharudin**, IN Mohamad (2023). *A Study on household food waste management and composting practice*. IOP Conference Series: Earth and Environmental Science 1205 (1), 012018

IZ Daud, ZZM Zaki, IN Mohammad, **F Baharudin** (2023*). Evaporation rate for covered and uncovered condition case study: UiTM Shah Alam*. IOP Conference Series: Earth and Environmental Science 1205 (1), 012017

NAE Mazli, ZZM Zaki, **F Baharudin** (2022*). Preliminary Assessment on Water Quality of Different Wastewater Using Solar Water Distillation Technique*. IOP Conference Series: Earth and Environmental Science 1022 (1), 012077

N Hamzah, NS Marzuki, **F Baharudin**, NL Rahim, NAF Mohd Kamil, NA Akbar, NS Mohd Zin (2022). *Knowledge, Attitudes, Awareness and Practices on Household Hazardous Waste Disposal Among Undergraduate Students in Selangor, Malaysia*. Proceedings of the 3rd International Conference on Green Environmental Engineering and Technology, 103-113.

F Baharudin, N Hamzah, IN Mohamad, ZZM Zaki (2021). *Assessment of hydraulic conductivity improvement due to vibration application at riverbank*. IOP Conference Series: Earth and Environmental Science 920 (1), 012022

MA Sefie, IN Mohamad, **F Baharudin**, J Kassim (2021). *Ecological Risk Assessment of Heavy Metals Contamination in Lower Klang River*. IOP Conference Series: Earth and Environmental Science 920 (1), 012023

S Roslan, AZM Zahid, **F Baharudin**, J Kassim (2021). *TakaFert: Biofertilizer of Leachate Sludge and Food Wastes by Takakura Composting*. IOP Conference Series: Earth and Environmental Science 685 (1), 012009

F Baharudin, J Kassim, SNM Imran, M Ab Wahab (2021). *Water Quality Index (WQI) classification of rivers in agriculture and aquaculture catchments*. IOP Conference Series: Earth and Environmental Science 646 (1), 012023

BCC Xian, CW Kang, M Ab Wahab, MRRMA Zainol, **F Baharudin** (2021). *Evaluation of low impact development and best management practices on peak flow reduction using SWMM*. IOP Conference Series: Earth and Environmental Science 646 (1), 012045

F Baharudin, N Hamzah, M Ab Wahab, CW Kang (2021*). Effectiveness of powdered activated carbon from fruit waste in removing heavy metals in groundwater*. IOP Conference Series: Earth and Environmental Science 646 (1), 012024

Hamzah, N., Wan Ismail, W.N.F., Zainudin, N.S., Kassim, J., Halip, A.A. and **Baharudin, F.** (2020). *Correlation Analysis of Bacterial Growth and Heavy Metal Concentration in Composting of Leachate Sludge and Municipal Sludge*. IOP Conference Series: Earth and Environmental Science, 616(1)

Ab Wahid, M., Lee W.K. and **Baharudin, F.** (2020). *Implementing Project-Based Learning for Sustainability Management Course at Postgraduate Level*. Asian Journal of University Education 16 (2), 84-92

Mudashiru, R.B., Abustan, I. and **Baharudin, F.** (2019). *Methods of Estimating Time of Concentration: A Case Study of Urban Catchment of Sungai Kerayong, Kuala Lumpur*. Proceeding AWAM International Conference on Civil Engineering, 119-161.

MAJA Nasir, Jani, J. and **Baharudin, F.** (2018). *A Study on the Soil Properties and Subsurface Characterization for Riverbank Filtration by using 2-D Electrical Resistivity Method at Jenderam Hilir, Dengkil, Selangor*. AIP Conference Proceedings 2020, 020079.

Baharudin, F., Tadza, M.Y.M., Imran, S.N.M. and Jani, J. (2018). *Removal of iron and manganese in groundwater using natural biosorbent*. IOP Conference Series: Earth and Environmental Science 140 (1)

Imran, S.N.M., **Baharudin, F**., Ali, M.F. and Rahiman, M.H.F. (2018). *Chemical relationship on detection of ganoderma disease on oil palm tree*. IOP Conference Series: Earth and Environmental Science 140(1).

Tadza, M.Y.M and **Baharudin, F**. (2017). *Treatment efficiency and compressibility behaviour of soil modified with powdered activated carbon*. International Journal of GEOMATE. Vol. 12, pp. 122-126.

Baharudin, F., Harun, M.S., Roslee, N.S. (2015). *Effect of vibration on hydraulic conductivity of clogged soil*. Proceedings of International Civil and Infrastructure Engineering Conference 2014. Kota Kinabalu, Sabah.

Baharudin, F., Harun, M.S., Khalid, N., Yusoff, Z.M. (2015). *Assessment of riverbank soil properties at Sg. Damansara.*. Proceedings of International Civil and Infrastructure Engineering Conference 2014. Kota Kinabalu, Sabah.

Ab Wahid, M., Mohamed Basri, Z.D., Halip, A.A., **Baharudin, F.**, Jani, J., Ali, M.F. (2015). *Antibiotic Resistance Bacteria in Coastal Shrimp Pond Water and Effluent.* Proceedings of International Civil and Infrastructure Engineering Conference 2014. Kota Kinabalu, Sabah.

Khalid, N., Mukri, M., Kamarudin, F., Abdul Ghani, A.H., Arshad, M.F., **Baharudin, F.** (2015). *SOFT Soil Subgrade Stabilization Using Waste Paper Sludge Ash (WPSA) Mixtures*. Proceedings of International Civil and Infrastructure Engineering Conference 2014. Kota Kinabalu, Sabah.

Baharudin, F., Iskak, A.N. and Shafiee, A. (2014*). Determination of Baseflow Index for Bernam River at Tanjung Malim*. Proceedings of International Civil and Infrastructure Engineering Conference 2013, Kuching, Sarawak.

Ahmad Kamal, N., Ahmad, H., Tahir, W., Mohamad, I.N. and **Baharudin, F.** (2010). *Fluid Mechanics and Hydraulics Laboratory Manual (OBE)*. ISBN 978-967-363-108-7, UPENA UiTM.

Abustan, I., Abdul Wahid, N., Sulaiman, A.H., **Baharudin, F.** (2008). *Determination of rainfall-runoff characteristics in urban areas: Sungai Kerayong catchment, Kuala Lumpur*. Proceedings of 11th International Conference on Urban Drainage, Edinburgh, Scotland, UK.

Baharudin, F., Abustan, I. and Sulaiman, A.H. (2007). *A comparative study to estimate time of concentration for urban catchment: Sungai Kerayong, Kuala Lumpur*. Proceedings of Persidangan Kebangsaan Awam ke-4, Langkawi, Kedah.