

WAN NUR AIFA BINTI WAN AZAHAR



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
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ACADEMIC QUALIFICATION

- DOCTOR OF PHILOSOPHY (FIELD OF RESEARCH: CIVIL ENGINEERING)
- MASTER OF ENGINEERING (CIVIL-HIGHWAY AND TRAFFIC)
- BACHELOR OF ENGINEERING (CIVIL)

TEACHING RESPONSIBILITIES

CIVIL ENGINEERING LAB II	2018/2019
CIVIL ENGINEERING LAB III	2018/2019
CIVIL ENGINEERING LAB IV	2019/2020 2020/2021
CONTRACT AND ESTIMATION	2018/2019 2019/2020 2020/2021
FINAL YEAR PROJECT I	2019/2020 2020/2021
FINAL YEAR PROJECT II	2020/2021
GEOLOGY AND SOIL MECHANICS	2018/2019
HIGHWAY AND TRAFFIC ENGINEERING	2019/2020 2020/2021
PAVEMENT ENGINEERING	2020/2021
RESEARCH METHODOLOGY AND SEMINAR	2020/2021
RESEARCH METHODOLOGY AND SEMINAR	2020/2021
TRAFFIC MANAGEMENT	2018/2019

RESEARCH PROJECTS

In Progress

- | | |
|-----------------------|---|
| 2019 - Present | Study on Rainfall Intensity Duration Threshold Induced Landslides Occurrence in Peninsular Malaysia |
| 2019 - Present | INVESTIGATION ON THE COMPATIBILITY OF WASTE COOKING OIL (WCO) FOR BINDER MODIFICATION AND ITS APPLICATION IN POROUS ASPHALT MIXTURE |

2019 - Present INVESTIGATION ON THE COMPATIBILITY OF WASTE COOKING OIL (WCO) FOR BINDER MODIFICATION AND ITS PERFORMANCE IN POROUS ASPHALT MIXTURE

2018 - Present Derivation of classification for flexible taxiway pavement profile using shear wave velocity parameter

PUBLICATIONS

Article

- 2019** [Stability and stiffness of asphaltic concrete incorporating waste cooking oil.](#) International Journal of Recent Technology and Engineering (IJRTE) , 7 (6) pp.16-19
- 2019** [X-ray diffraction analysis of bitumen containing untreated and treated waste cooking oil.](#) International Journal of Recent Technology and Engineering (IJRTE) , 8 (3S3) pp.434-437
- 2018** [Assessment framework for pavement material and technology elements in green highway index.](#) Journal of Cleaner Production , 174 pp.1240-1246
- 2017** [Mechanical performance of asphaltic concrete incorporating untreated and treated waste cooking oil.](#) Construction and Building Materials , 150 pp.653-663
- 2016** [The potential of waste cooking oil as bio-asphalt for alternative binder – An overview.](#) Jurnal Teknologi , 78 (4) pp.111-116
- 2016** [A review on application of waste cooking oil as rejuvenator in porous asphalt mixture.](#) Jurnal Teknologi , 78 (4) pp.105-109
- 2016** [Chemical identification of waste cooking oil as additive in Bitumen.](#) Key Engineering Materials , 700 pp.207-215
- 2016** [Performance of waste cooking oil in asphalt binder modification.](#) Key Engineering Materials , 700 pp.216-226
- 2016** [Effect of antioxidant characteristic from waste cooking oil in modified asphalt binder.](#) Key Engineering Materials , 700 pp.197-206
- 2016** [Chemical modification of waste cooking oil to improve the physical and rheological properties of asphalt binder.](#) Construction and Building Materials , 126 pp.218-226
- 2015** [Application of nanotechnology in asphalt binder: A conspectus and overview.](#) Jurnal Teknologi , 76 (14) pp.85-89
- 2015** [Pavement technology elements in green highway.](#) Jurnal Teknologi , 73 (4 (Special Issue on Highway and Transportation Engineering Part 2)) pp.45-49
- 2015** [Assessment index tool for green highway in Malaysia.](#) Jurnal Teknologi , 77 (16 (Research Advances in Sustainable Structure, Material and Construction)) pp.99-104

2014 [Pavement material and technology elements in green highway rating systems-a conspectus.](#) Jurnal Teknologi , 70 (7 (Special Issue on Sustainability and Construction Management)) pp.131-138

Conference or Workshop Item

2020 [Rainfall-induced landslides in Cameron Highland area, Malaysia.](#) In: **International Conference on Technology, Engineering and Sciences (ICTES) 2020**

2020 [Correlation between slump, VeBe and compaction factor of concrete containing shredded PET bottles, manufactured sand \(M-sand\) and river sand as fine aggregate.](#) In: **5th International Conference on Advanced Technology and Applied Sciences and 6th Malaysia Japan Joint International Conference (ICETAS MJJIC 2020)**

2020 [Assessment ranking for green pavement material elements.](#) In: **International Conference on Technology, Engineering and Sciences (ICTES) 2020**

2020 [Higher modes and superposed mode behavior for flexible pavement layer system.](#) In: **6th International Conference on Advanced Engineering and Technology (ICAET 2019)**

2020 [Waste cooking oil as bio asphalt binder: a critical review.](#) In: **3rd National Conference on Wind and Earthquake Engineering & International Seminar on Sustainable Construction Engineering (NCWE & ISSCE 2019)**

2019 [Voids characteristic of hot mix asphalt containing waste cooking oil.](#) In: **National Colloquium on Wind and Earthquake Engineering**

2019 [Rutting resistance of untreated and treated waste cooking oil in bitumen after aging condition.](#) In: **National Colloquium on Wind & Earthquake Engineering**

Book Book Section

2020 [Rainfall intensity \(I\)-duration \(D\) induced debris flow occurrences in Peninsular Malaysia.](#) In: **Proceedings of AICCE'19** Springer, Cham . ISBN 978-3-030-32815-3 , pp.897-903

2020 [Investigation on compatibility property between aggregates and bitumen modified with untreated and treated waste cooking oil.](#) In: **Proceedings of AICCE'19** Springer International Publishing . ISBN 978-3-030-32815-3 , pp.933-942

2020 [Reusable concrete debris as aggregate replacement on the properties of green concrete.](#) In: **Proceedings of AICCE'19** Springer International Publishing . ISBN 978-3-030-32815-3 , pp.869-878

2019 [Determination of soil bearing capacity and profile using CAP-SASW method at Western Malaysian Peninsular.](#) In: **Proceedings of AICCE'19** Springer Nature . ISBN 978-3-030-32815-3 , pp.855-867