
Curriculum Vitae

Name: Dr. Mastura Binti Bujang

List of Research:

Internal Grant

1. Effect of Crumb Rubber and Silica Fume on Mechanical Performance of Asphaltic Concrete
(UTS/RESEARCH/4/2023/19)
2. Pipe Burst Vulnerability Map for Sibu Water Board (SWB)
(UCTS/RESEARCH/2/2021/01)
3. Utilization of Silica Waste for Peat Soil Stabilization
(UCTS/RESEARCH/4/2019/14)
4. Performance of Oil Palm Fruit Ash (OPFA) as Binder Modifier in Asphaltic Concrete
(UCTS/RESEARCH/4/2018/03)
5. Utilization of Palm Oil Industry By-Product in Mortar and Brick Production
(UCTS/RESEARCH/4/2018/13)
6. A survey on energy-use behaviour towards building characteristics and space cooling of urban residents in Malaysia
(UCTS/RESEARCH/3/2017/04)
7. Traffic Impact Assessment (TIA) of a new development of Sibu Central at Jalan Tun Ahmad Zaidi Aduce, Sibu, Sarawak
(UCTS/RESEARCH/3/2017/05)

External Grant

1. Crystallinity Degree Modification in Solving Compatibility Performance of Desiccated Coconut Residue (DCR) in Hot Mix Asphalt (HMA)
(Fundamental Research Grant Scheme- FRGS/1/2023/TK02/UIAM/02/3)
2. Performance of Peat Soil incorporating Silica Waste as Stabilizer Agent
(Sarawak Research and Development Council- RDCRG/RIF/2019/10)
3. Peat Soil Stabilization using Recycled Tyres and Geofoam Lightweight Material
(Sarawak Research and Development Council - RDCRG/RIF/2019/09)

4. Investigation on the Compatibility of Waste Cooking Oil (WCO) for Binder Modification and Its Performance in Porous Asphalt Mixture
(Fundamental Research Grant Scheme- FRGS/1/2019/TK06/UIAM/02/3)

List of Consultancy:

1. Development of Malaysian Driving Cycle (MDC), Malaysia Automotive Robotics and IoT Institute (MARii) – University College of Technology Sarawak (UCTS), (2019– 2021)

List of Publications:

Journal:

1. **Mastura Bujang**, Nisa 'Aqila Bakie, Umami Humaira Bujang, Lee Siaw Kian, Euniza Jusli, and Wan Nur Aifa Wan Azahar. Characteristics of Oil Palm Fruit Ash as Binder in Asphaltic Concrete. *Jurnal Kejuruteraan (Journal of Engineering)*. Vol.35 (4), 2023. pp 913-921, ISSN: 2289-7526
2. **Mastura Bujang**, Nisa 'Aqila Bakie, Umami Humaira Bujang, Lee Siaw Kian, Euniza Jusli, and Wan Nur Aifa Wan Azahar. Performance of Asphalt Mixture Incorporating Oil Palm Fruit Ash as Modified Binder. *Borneo Journal of Sciences & Technology*. Vol.5 (1), 2023. pp 10-17, ISSN: 2672-7439
3. Mazizah Ezdiani Mohamad, Afnan Ahmad, Hafizah Saadon, Muslich Hartadi Sutanto, **Mastura Bujang**, Azrul Zulwali Kifli, and Syazie Nordzaima Ali Mohamad. Peat Stabilization using Waste Crumb Rubber Tire. *Civil Engineering and Architecture*. 2022. 10(7), pp3253-3263, ISSN: 23321091, WOS – Q2, Scopus
4. Afnan Ahmad, Muslich Hartadi Sutanto, Niraku Rosmawati Ahmad, Mazizah Ezdiani Mohamad, and **Mastura Bujang**. Microstructural Characterization of Fibric Peat Stabilized with Portland Cement and Silica Fume. *Materials*. MDPI. 2022. ISSN: 1996-1944, WOS – Q1, Scopus.
5. Muhammad Imran Khan, Siti Yusrina Zainal Abidin, Muslich Hartadi Sutanto, Fadhli Wong, and **Mastura Bujang**. Simulating the Impact of Vehicle Speed on the Life of Bituminous Pavement. *IOP Conference Series. Earth and Environmental Science*. 1022(1), 2022. pp 012040, ISSN: 1755-1307 Scopus
6. Wan Nur Aifa Wan Azahar, Norhidayu Kasim, Norfarah Nadia Ismail, Ramadhansyah Putra Jaya, Mohd Rosli Hainin, Khairil Azman Masri, **Mastura Bujang**, and Zaid Hazim Al-Saffar. Behaviour of Hot Mix Asphalt Incorporating Untreated and Treated Waste Cooking Oil. *International Journal of Pavement Research and Technology*. 15(3), 2022. pp 557-588, ISSN: 1996-6814., WOS – Q1, Scopus

7. Hirda Lailani Khalid and **Mastura Bujang**. A Survey of Energy-Use Behaviour in Apartment Buildings in East and West Malaysia. *Borneo Journal of Sciences & Technology*. Vol.4 (2), 2022. pp 24-32, ISSN: 2672-7439
8. Euniza Jusli, Jen Hua Ling, **Mastura Bujang**, Dayang Siti Hazimmah Ali, Toh Sing Lee. Physical and Chemical Properties of Palm Oil Boiler Ash and Palm Oil Clinker Powder. *Borneo Journal of Sciences & Technology*. Vol.4 (1), 2022. pp 1-5, ISSN: 2672-7439
9. Ahmad, A., Sutanto, M.H., Ahmad, N.R.b., **Bujang, M.**, and Mohamad, M.E. The Implementation of Industrial Byproduct in Malaysian Peat Improvement: A Sustainable Soil Stabilization Approach. *Materials*. MDPI. 2021. 14, 7315, <http://doi.org/10.3390/ma14237315>, WOS – Q1, Scopus.
10. Euniza Jusli, Jen Hua Ling, **Mastura Bujang**, Dayang Siti Hazimmah Ali, Toh Sing Lee. An Application of Blended Palm Oil Waste in Brick Production. *Indonesian Journal of Computing, Engineering and Design*. Vol.3 (2), 2021. pp 97-105, ISSN: 2656-1972
11. Hirda Lailani Khalid and **Mastura Bujang**. Preliminary Study of Window-Opening Behaviour and Space Cooling Methods of Urban Households in East Malaysia. *Borneo Journal of Sciences & Technology*. Vol.3 (2), 2021. pp 48-58, ISSN: 2672-7439
12. Bakie, N.A and **Mastura Bujang**. Traffic Impact Assessment of Proposed Development of Sibu Central. *International Journal of Advanced Research in Technology and Innovation*. Vol.2, 2020. pp 14-24, ISSN: 2682-8324
13. Bakie, N.A and **Mastura Bujang**. Existing Road Performance of the New Development of Sibu Central. *Journal of Engineering and Science Research*. Vol.4, 2020. pp 7-13, ISSN: 2289-7127
14. **Mastura Bujang**, Mohd Rosli Hainin, Muhd Zaimi Abd. Majid, Mohd Khairul Idham Mohd Satar, and Wan Nur Aifa Wan Azahar. Assessment Framework for Pavement Material and Technology Elements in Green Highway Index. *Journal of Cleaner Production*. Vol. 174, 2018. pp 1240-1246, ISSN: 0959-6526. IF: 5.651, WOS – Q1, Scopus
15. Wan Nur Aifa Wan Azahar, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, **Mastura Bujang**, and Norzita Ngadi. Mechanical Performance of Asphaltic Concrete Incorporating Untreated and Treated Waste Cooking Oil. *Construction and Building Materials*. Vol.150, 2017. pp 653-663, ISSN: 0950-0618, IF: 3.485, WOS - Q1, Scopus
16. Wan Nur Aifa Wan Azahar, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, **Mastura Bujang**, and Norzita Ngadi. Chemical Modification of Waste Cooking Oil to Improve Physical and Rheological Properties of Asphalt Binder. *Construction and Building Materials*. Vol.126, 2016. pp 218-226, ISSN: 0950-0618, IF: 3.485, WOS - Q1, Scopus

17. Wan Nur Aifa Wan Azahar, **Mastura Bujang**, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, Norzita Ngadi, and Mohd Mustafa Al Bakri Abdullah. Effect of Antioxidant Characteristic from Waste Cooking Oil in Modified Asphalt Binder. Key Engineering Materials. Vol.700, 2016. pp 197-206, ISSN: 1662-9795 Scopus
18. Wan Nur Aifa Wan Azahar, **Mastura Bujang**, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, Norzita Ngadi, and Mardhiah Mohamad. Chemical Identification of Waste Cooking Oil as Additive in Bitumen. Key Engineering Materials. Vol.700, 2016. pp 207-215, ISSN: 1662-9795 Scopus
19. Wan Nur Aifa Wan Azahar, **Mastura Bujang**, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, Norzita Ngadi, and Mohd Mustafa Al Bakri Abdullah. Performance of Waste Cooking Oil in Asphalt Binder Modification. Key Engineering Materials. Vol.700, 2016. pp 216-226, ISSN: 1662-9795 Scopus
20. Wan Nur Aifa Wan Azahar, **Mastura Bujang**, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, Norzita Ngadi, Mohd Ezree Abdullah and Abdullahi Ali Mohamed. A Review on Application of Waste Cooking Oil as Rejuvenator in Porous Asphalt Mixture. Jurnal Teknologi. Vol.78, No.4, 2016. pp 105-109, ISSN: 2180-3722 Scopus
21. Wan Nur Aifa Wan Azahar, **Mastura Bujang**, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, Azman Mohamed, Norzita Ngadi and Dewi Sri Jayanti. The Potential of Waste Cooking Oil as Bio-Asphalt for Alternative Binder – An Overview. Jurnal Teknologi. Vol.78, No.4, 2016. pp 111-116, ISSN: 2180-3722 Scopus
22. Saeed Balubaid, **Mastura Bujang**, Wan Nur Aifa, Foo Kian Seng, Raja Rafidah Raja Muhammad Rooshdi, Norhaliza Hamzah, Yazlin Salfiza Mohd Yazid, Muhd Zaimi Abd. Majid, Rosli Mohamad Zin, Rozana Zakaria, Mohd Rosli Hainin, Haryati Yaacob and Hasrul Haidar Ismail. Assessment Index Tool for Green Highway in Malaysia. Jurnal Teknologi. Vol.77, No.16, 2015. pp 99-104, ISSN: 2180-3722 Scopus
23. Wan Nur Aifa Wan Azahar, **Mastura Bujang**, Ramadhansyah Putra Jaya, Mohd. Rosli Hainin, Md. Maniruzzaman A. Aziz and Norzita Ngadi. Application of Nanotechnology in Asphalt Binder: A Conspectus and Overview. Jurnal Teknologi. Vol.76, No.14, 2015. pp 85-89, ISSN: 2180-3722 Scopus
24. Wan Nur Aifa, Mohd. Rosli Hainin, Muhd. Zaimi Abd. Majid, Rosli Mohamad Zin, Haryati Yaacob, Rozana Zakaria and **Mastura Bujang**. Pavement Technology Elements in Green Highway. Jurnal Teknologi. Vol.73, No.4, 2015. pp 45-49, ISSN: 2180-3722 Scopus
25. **Mastura Bujang**, Mohd. Rosli Hainin, Mohammadreza Yadollahi, Muhd. Zaimi Abd. Majid, Rosli Mohamad Zin and Wan Nur Aifa Wan Azahar. Pavement Material and Technology Elements in Green Highway Rating Systems- A Conspectus. Jurnal Teknologi. Vol.70, No.7, 2014. pp 131-138, ISSN: 2180-3722 Scopus

Proceeding / Conference:

1. Saeed Modibbo Saeed, Muslich Hartadi Sutanto, Madzlan Napiyah, Fadhli Wong, and **Mastura Bujang**. "Review on the Effect of Curing on Cold Recycled Asphalt Mixture". Proceedings of the International Conference on Civil, Offshore, and Environmental Engineering, 1052-1060, 2021.
2. Abdul Muhaimin Memon, Muslich Hartadi Sutanto, Madzlan Napiyah, Fadhli Wong, and **Mastura Bujang**. "Effect of Bitumen Modification on Pavement Performance Subjected to High Vehicular Speed and Extreme Temperature Conditions: A Review". Proceedings of the International Conference on Civil, Offshore, and Environmental Engineering, 1044-1052, 2021.
3. W.N.A. Wan Azahar, R.P. Jaya, **M. Bujang**, N. Kassim, N.N. Ismail, N.M. Husain, N.K. Basri, and N.A.A.M Hasazli. "Assessment Ranking for Green Pavement Material Elements". International Conference on Technology, Engineering and Science (ICTES), 2020.
4. Hirda Lailani Khalid, **Mastura Bujang** and Muhammad Oliver Ensor. "Preliminary Study of Window-Opening Behaviour and Space Cooling Methods of Urban Households in East Malaysia". The International Heritage and Cultural Conservation Conference (InHerit2018), 3rd – 5th December 2018, Waterfront Hotel Kuching, Sarawak, Malaysia.
5. How Teck Sia, Yong Tat Lim, **Mastura Bujang** and Jen Hua Ling. "Performance of Cement Brick Containing Empty Fruit Bunches and Silica Fume". The 1st International Conference on Durability of Building and Infrastructure (DuraBI), 10th – 12th January 2018, Meritz Hotel Miri, Sarawak, Malaysia.
6. **Mastura Bujang**, Mohd Rosli Hainin, Muhd Zaimi Abd Majid, Rosli Mohamad Zin, Haryati Yaacob, Rozana Zakaria and Wan Nur Aifa. "Elements of Material and Pavement Technology in Green Highway Rating System – A Review". The 9th International Conference on Geotechnical and Transportation Engineering & The 1st International Conference on Construction and Building Engineering (GEOCON 2013), 28th – 30th October 2013, Persada Johor International Convention Centre, Johor Bahru, Malaysia.
7. Mohd Rosli Hainin, Muhd Zaimi Abd Majid, Rosli Mohamed Zin, Haryati Yaacob, Rozana Zakaria, **Mastura Bujang** and Wan Nur Aifa. "Pavement Technology Elements in Green Highway". The 9th International Conference on Geotechnical and Transportation Engineering & The 1st International Conference on Construction and Building Engineering (GEOCON 2013), 28th – 30th October 2013, Persada Johor International Convention Centre, Johor Bahru, Malaysia.

8. Rozana Zakaria, Foo Kian Seng, Othman Che Puan, Muhd Zaimi Abd Majid, Rosli Mohamad Zin, Mohd Rosli Hainin, Mushairry Mustaffar, Nurhaliza Hamzah, Saeed Balubaid, Ain Naadia Mazlan, Hasrul Haidar, **Mastura Bujang**, Wan Nur Aifa, Raja Rafidah Rooshdi and Nurizan Abd Rahman. "Energy Efficiency Elements for Malaysia Green Highway Index". The 9th International Conference on Geotechnical and Transportation Engineering & The 1st International Conference on Construction and Building Engineering (GEOCON 2013), 28th – 30th October 2013, Persada Johor International Convention Centre, Johor Bahru, Malaysia.
9. Mohd Rosli Hainin, Rosli Mohamad Zin, Muhd Zaimi Abd Majid, Hasanan Md Nor, Azlan Adnan, Haryati Yaacob, Rozana Zakaria, **Mastura Bujang** and Wan Nur Aifa. "Performance of Steel Slag As Potential of Aggregate Replacement Towards Green Highway". 8th Asia Pacific Structural Engineering & Construction Conference (APSEC 2012) & 1st International Conference on Civil Engineering Research (ICCER 2012), 2nd – 4th October 2012, Surabaya, Indonesia.
10. Mohd Rosli Hainin, Wan Nur Aifa, **Mastura Bujang** and Zaimi Abd Majid. "Recycling of Pavement towards Sustainable Green Highway". 8th Asia Pacific Structural Engineering & Construction Conference (APSEC 2012) & 1st International Conference on Civil Engineering Research (ICCER 2012), 2nd – 4th October 2012, Surabaya, Indonesia.