Personal Information

Name	:	Dr. Mst. Sadia Mahzabin
Designation	:	Assistant Professor for concrete materials & Structural Engineering
Office Address	:	Department of Civil Engineering, Lee kong Chian Faculty of Engineering and Science University Tunku Abdul Rahman (UTAR) Sungai Long Campus, Kajang, Malaysia
Research Guide	:	UTAR, Malaysia
Experience	:	Teaching : 4 Years Part time teaching : 1 years Total Experience : 5 Years
Residential Address	:	D-10-3A Felicia, Cloud Tree Residence, Jln Juara, Seri Kembangan, Malaysia

Teaching Subjects

- Structural Steel Design,
- Solid mechanics,
- Reinforced Concrete Design,
- Structural Analysis,
- Statics,
- Dynamics.

Academic Qualification

Degree	Branch	Grade	Year of Passing	Institution & University
Ph. D	Civil Engineering	-	Jan 2014	Universiti Kebangsaan Malaysia (UKM), Selangor, Malaysia
M.E	Civil Engineering	3.5 out of 4	Aug 2009	Universiti Kebangsaan Malaysia (UKM), Selangor, Malaysia
B.Sc.	Civil Engineering	2.97	July 2006	Rajshahi University Of Engineering & Technology (RUET), Bangladesh
HSc	-	First Class	Sep 2001	Board of Intermediate and Secondary Education, Rajshahi, Bangladesh

Research Area

- Composite
- Composite Materials
- Performance of Fibre in Composite
- Chemical and mineral admixtures in concrete

Research Funding & Achievements

Name of the funding Agency	Brief Achievements	Status	Cost Rs: (Ringit Malaysia)
FRGS	Mechanical Properties and Durability of Chemically Treated Kenaf Fibre Reinforced Cement Composite (KFRCC) Incorporating Water Treatment Sludge (Ref no.: FRGS/1/2016/TK06/UKM/02/2) 1/8/2016-18 dated 31.07.2018.	On - going	**90,000.00**
UTARRF	Structural performance of Wood Fibre Reinforced Foamed Composite(WFRFC) IPSR/RMC/UTARRF/2016-C1/M2 Dared: 30/06/2017	Completed	**60,000.00**
UTARRF	Non-Destructive Evaluating of Concrete Structure by Means of Rayleigh Wave Methodologies. Dated: 31/12/2018	On - going	**43,000.00**

National & International Publications

- Mst. Sadia Mahzabin, R. Hamid and W.H.W. Badaruzzaman 2010. Finite Element Analysis of WWCB Wall Panel Flexural Behavior. International Journal on Advanced Science Engineering & Information Technology. Vol.2, No.2, Pp: 63-65.
- Mst. Sadia Mahzabin, R.Hamid and W.H.W. Badaruzzaman. 2013. Evaluation of chemicals incorporated wood fibre cement matrix properties. Journal of Engineering Science and Technology, Vol. 8, No. 4 (2013) 385-398.
- Mst. Sadia mahzabin, roszilah hamid, Experimental investigation of wood fibre cement composite wall panel under axial loading, IOP Conf. Series: Materials Science and Engineering 78(2015) 012037, Pp: 1-6.
- Mst. Sadia mahzabin, Roszilah Hamid and shahrizan baharom. Rasch model approach for final Examination questions construct validity of two successive cohorts. Journal of Engineering Science and Technology Special Issue on UKM Teaching and Learning Congress2013, June (2015) 42 - 52 © School of Engineering, Taylor's University.

- Mst. Sadia Mahzabin, R. Hamid and W.H.W. Badaruzzaman. 2015. Chemical Characterization of Wood Fibre Cement Composite Board. International Journal of Advanced and Applied Science (Accepted).

- Mst. Sadia Mahzabin, R. Hamid & A. K. Rashid. 2009. Benefits of Opting Precast Wall Panels for Residential Building. Regional Engineering Postgraduate Conference (EPC 2009). 20-21 October 2009. Malaysia.

- R. Hamid, Mst. Sadia Mahzabin, Md. Shabbir Hossain and W.H.W. Badaruzzaman 2010. Material cost saving by opting to precast load bearing wall system for high rise residential housing. World Engineering Congress 2010, 2nd – 5th August 2010, Kuching, Sarawak, Malaysia.

- Mst. Sadia Mahzabin, R. Hamid and W.H.W. Badaruzzaman 2011. Finite Element Analysis of WWCB Wall Panel Flexural Behaviour. 2nd International Conference on Advance Science, Engineering and Information Technology, Impiana Hotel KLCC. Kuala Lumpur Malaysia. 12-13 December 2011.

- Mst. Sadia Mahzabin, R. Hamid and W.H.W. Badaruzzaman 2012. Finite Element Analysis of Wood Wool Cement Board (WWCB) Column. 11th International Conference on Concrete Engineering and Technology 2012 (CONCET2012) 12th –13th June 2012. Putrajaya, Malaysia.

- Mst. Sadia Mahzabin, R. Hamid and W.H.W. Badaruzzaman 2012. Optimization of the mechanical and physical properties of wood wool cement matrix with treated wood fibre. 3rd International Technical Conference 2012 (ITC 2012) 30th, 31th October & 1st November, 2012. Kuala Lumpur, Malaysia.

- Mst. Sadia Mahzabin, Roszilah Hamid, Wan Hamidon Wan Badaruzzaman & Azrul A. Mutalib. 2013. Behaviour of Wood Fibre Cement Composite Wall Panel under Axial Load. Kongres Penyelidikan & Inovasi UKM2013.

- Mst. Sadia Mahzabin, Roszilah hamid, Experimental investigation of wood fibre cement composite wall panel under axial loading, 9th CUTSE conference, sarawak, 3-4th december 2014.

- Mst. Sadia Mahzabin, Ehsan Nikbakht, Roszilah Hamid and Wan Hamidon Wan Badaruzzaman. Load- deformation of RWFC Composite Wall Panels using Finite Element- A Analytical method, CAASR International Conference on Civil and Structural Engineering 2016. Kuala Lumpur, Malaysia, 5th -6 th May 2016.

- E. Nikbakhtand M. & S. Mahzabin, Displacement-based Design for Precast Post-tensioned Segmental Columns with Different Aspect Ratios. Civil, Offshore and Environmental Engineering: Pages: 423–426, (2016).
- Jee Hock Lim, Kang Yan Tan, Mst. Sadia Mahzabin, Siong Kang Lim. 2016. A Study on the Effect of Horizontal Reinforcement Thickness on the Structural Integrity of Cold-formed Steel Roof Trusses. International Technical Conference 2016. ITC2016, 6-8 Dec 2016, Kota Kinabalu, Malaysia. Pp: 249-256.
- M. S. Hossain, A. El-Shafie, M. S. Mahzabin, M. H. Zawaw. 2016. System performances analysis of reservoir optimization – simulation model in application of artificial bee colony algorithm. Neural Computing and Application, springer. Pp: 1-12.
- M.R. Alama, A.B.M.A. Kaish, M.F.M. Zain, S.K. Dev, M.S. Mahzabin. 2017. Vulnerability assessment and construction recommendations of local houses in the cyclone prone coastal areas of Bangladesh. International Journal of Disaster Risk Reduction. Vol: 21, pp: 118 - 130.
- M.S.Mahzabin, L.J.Hock, L.S.Kang & E.N. Jarghouyeh. 2017. Performance of mechanical behavior of kenaf fibre reinforced foamed composite. AIP Conference Proceedings 1892, 020035(2017); https://doi.org/10.1063/1.5005666.

Academic Activities Involved

01/01/2010-01/01/2011	Academic, Student Member of Engineering Postgraduate Student Committee (EPSC) at UKM.
03/12/2014 - 04/12/2014	Session chair for the conference parallel session, Curtin University, Sarawak Malaysia.
08/08/2015 till Now	Scientific and technical committee & editorial review board, world academy of science, engineering & technology (WASET).
07/05/2015 – 05/06/2015	Reviewer, advances in structural engineering
04/03/2016 – Till Now	Editorial board and scientific committee member, Canadian Arena Of Applied Scientific Research ltd.
2014 –till Now	Public Relation Officer, Centre for Disaster Risk

	Reduction (CDRR), UTAR
05/05/2016 – 06/05/2016	Session Chair, CAASR International Conference on Civil and Structural Engineering
04/01/2016 – till Now	Committee of Homepage Development and Information committee (HDIC)

Communication Address

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Other Skills

I. Graphics: Engineering Drawing in Auto CAD 2004, Adobe Photoshop.
II. Software: Esteem Plus 6.2, LUSAS, ANSYS 10, WINSTEP, MIDAS Gen
III. Platform: Windows 98/2000/XP & windows Vista

IV. Microsoft Office Word, Microsoft Office Excel

Memberships in professional societies

- Eng. Member, The Institute of Engineers, Bangladesh (IEB).
- Graduate member, Board of Engineer Malaysia, (BEM)

Research Description

I have been working with composite materials since 2009. My PhD research was based on composite materials (Optimization of Kelampayan Wood Fibre Cement Composite Properties for Application as Load Bearing Wall Panel). In this research i examined by X-ray diffraction (XRD) and X-ray fluorescence spectroscopy (XRF) for different moisture conditions and with or without chemical additives.

In UTAR i worked with treated kenaf fibre in foamed composite. I have complitted UTARRF research on Structural performance of Wood Fibre Reinforced Foamed Composite(WFRFC) in 2017. Along with, we determined Mechanical Properties and Durability of Chemically Treated Kenaf Fibre Reinforced Cement Composite (KFRCC) Incorporating Water Treatment Sludge in our FRGS government fund.

Currently I am doing research on kenaf fibre and along with synthetic fibre reinforced foamed composite. Our research will incorporate the fibre treatment using NaOH in conjunction with experimental approach in effort of understanding the composite. Fibre surface preliminary test, fibre sources, Chemical treatment, Fibre tensile test, micro structure Scanning Electron Microscopy, flexural test, moisture absorption of the kenaf fibre will be done to maximize strength and durability of fibre. The second part focuses on the durability properties which consist of two tests which are water absorption, drying shrinkage will be determined by accelerated aging conditions using elevated temperature ranging from 200°C to 800°C. Scanning Electron microscopy will be used to investigate the microstructure of the composite before and after aging.