A.F.M. Saiful Amin

Current Position	**Professor of Civil Engineering** Bangladesh Univ. of Engg. & Tech., Dhaka, Bangladesh
Date of Birth	**1971**
Nationality	**Bangladeshi**
Education:	BSc Engg. (Civil), Bangladesh Univ. of Engg. & Tech. – 1996 MSc Engg. (Civil), Bangladesh Univ. of Engg. & Tech. – 1998 PhD, Saitama University, Japan – 2001
Membership of Professional Associations:	Fellow, Institution of Civil Engineers, UK [Presidential Invitation] Fellow, Institution of Engineers, Bangladesh Fellow, Bangladesh Geotechnical Society Fellow, Bangladesh Earthquake Society Member, International Assoc. of Bridge and Struct. Engg. Member, American Society of Civil Engineers

Key Experiences

Dr. A.F.M. Saiful Amin is a Professor of Civil Engineering whose fundamental contributions have resulted in major improvements in the design and performance of bridges, strengthening the non-compliant structures. Dr. Amin focuses especially on improving codes and standards and the construction quality of civil engineering infrastructure.

His dedicated R&D teams have overseen the repair and retrofitting of structures, helping increase and preserve the structural soundness of many important buildings and remarkable bridges in Bangladesh. Specializing in the fields of structural engineering—particularly structural mechanics—and applied mechanics, Dr. Amin's expertise also includes thermodynamics, thermo-physics and cement chemistry.

He is an important researcher from Bangladesh to contribute in the "Technical Development to Upgrade Structural Integrity of Buildings in Densely Populated Urban Areas and Its Strategic Implementation towards Resilient Cities" funded by Japan International Cooperation Agency (JICA) in SATREPS Project in collaboration with University of Tokyo, Tohuko University, Osaka University and Daido University. He is the appointed focal person to run the Academic and Student Exchange Program between BUET and Saitama University.

In recent years, Dr. Amin has conducted groundbreaking research in understanding the constitutive behaviour of highly deformable rubber-like solids with Japan and Europe, recycling of demolished and waste concrete in an efficient way and curing behaviour of concrete, as well as the development of measurement techniques, forensic investigation, non-destructive testing, bridge health monitoring and bridge dynamics for vehicular and pedestrian movement. Dr. Amin's works appear and are being profusely cited in a wide range of influential international Journals.

Founding and nurturing the Bridge Engineering discipline in Bangladesh to assist her in sustainable infrastructure development, Dr. Amin has successfully organized conferences of Bridge Engineering at 5-year intervals since 2005. The most recent landmark conference—the IABSE-JSCE Conference on Advances in Bridge Engineering-III—held in Bangladesh in 2015, also celebrated the Centenary of Hardinge Bridge (1915-2015). He was the key facilitator from Bangladesh in signing a Memorandum of Understanding of Technical Cooperation between the two organizing bodies (JSCE and IEB) for formulating the Asian Model Code for Steel Bridges. In addition, Dr. Amin is an Editor for the Journal of Civil Engineering of the Institution of Engineers and helped with its online launch in 2006.

A respected Fellow with the Institution of Civil Engineers, United Kingdom (on presidential invitation) and Institution of Engineers in Bangladesh, Dr. Amin has studied, participated in research and conferences, received awards and grants, travelled and given lectures in many locations, including Germany, Japan, America, Bangladesh, the United Kingdom, Canada, Malaysia, Thailand, and Europe. Throughout many of these countries, Dr. Amin has personally examined bridges in his efforts to advance the knowledge of bridge engineering in Bangladesh. In June 2017, Japan Society of Civil Engineers honoured him in Tokyo with the prestigious JSCE International Outstanding Collaboration Award, the first person to receive from Bangladesh.

In addition to his professorship at BUET, Dr. Amin has, since 2007, been a Research Fellow at the Alexander von Humboldt Foundation, Germany. He has also held visiting professorships in 2004 at the University of Kassel (Germany) and in 2007 at the University of Federal Armed Forces, Munich (Germany).

After graduating from BUET in 1996 as a Civil Engineer and completing his MSc studies there in 1998, Dr. Amin completed his PhD at Saitama University in 2001. He has also received a doctoral research scholarship from the Government of Japan (Monbusho); Malik Akram Hossain Gold Medal 1996; University Merit Scholarships; F.R. Khan Scholarship, and many other honours.

Key Achievements:

Original Research Contributions:	Generalization of Hook's law for hyperelasticity and nonlinear dependence of viscosity in rubber, finite element implementation of large strain constitutive models representing material and geometric nonlinearities; rheology model of base isolation bearings for earthquake protection; recycling of demolished concrete; characterization of dilation effect in local materials (brick and stone aggregate concrete) for strengthening of columns; characterization of de-bonding phenomena in FRP strengthened beams.
Dissemination of Research:	More than 50 original publications in peer reviewed International Journals and conference proceedings.
Application of Fundamental Research in Bangladesh:	Design, construction, health monitoring, maintenance, repair and strengthening of long span bridges, maintenance of bearings and joints for bridges, strengthening of buildings, promoting the appropriate use of recycled concrete.

Mentorship for Young Engineers in Bangladesh:	Number of Prof. Amin's direct advisees and supervisees are now leading the university and professional arena of Bangladesh in the capacities of active researcher, university administrator, educator and project director. Mr. Ariful Hasnat from his research group gets enlisted in The 2016 class of ASCE New Faces of Civil Engineering – Professional, for the first time in the history of Bangladesh.
Notable Projects:	Repair, strengthening and health monitoring of Bangabandhu Jamuna Bridge (4.8 km), the Meghna Bridge (930m) and the Gumti Bridge (1410 m), the longest bridges of Bangladesh; Patgati Gridge, Sunamgonj Brige and Kalna Bridge; Renovation of Railway Bridges as Team Leader of Design Team or Vetting Team; Dhaka Elevated Expressway PPP Project as Expert of Bangladesh Bridge Authority. Strengthening of 8-storied Gausia Market, 21 storied Marriott Courtyard Dhaka, Dhaka City Corporation Markets and notable establishments either as the Lead Engineer or the Team Leader.
Leadership for the Next Generation Engineers:	Key organizer for seminars and symposiums to hearten the propagation of knowledge in Bangladesh including bridge engineering (2005, 2010, 2015 bridge engineering conferences), the major civil engineering infrastructure for the country. The 2015 event coincided with the Centennial Celebration of the Hardinge Bridge (1915-2015).

Outlook of Achievements:

Outcome of fundamental research in the field of applied mechanics	The generalization of Hook's law in representing the nonlinear elasticity response of materials is a significant research outcome of the applicant. The strain energy density function thus proposed got wide recognition among contemporary experts and scientists of mechanics. [Ref: Bechir, H., Chevalier, L., Chaouche, M., Boufala, K., (2006). Hyperelastic constitutive model for rubber-like materials based on the first Seth strain measures invariant, European Journal of Mechanics A/Solids 25 (2006) 110–124].
	The proposal for nonlinear viscosity law got wider applicability in modelling the viscoelastic response of highly deformable solids, e.g. artificial human muscles. [Ref: Shanshan Lv, Daniel M. Dudek, Yi Cao, M. M. Balamurali, John Gosline & Hongbin Li, (2010). Designed biomaterials to mimic the mechanical properties of muscles, Nature, 465, 69-73.]
	The measurements of Prof. Amin in the field of nonlinear elasticity and viscosity are regarded now as the benchmark measurements for conducting numerical simulations worldwide. [Ref: Dal, H., Michael Kaliske, M., (2009). Bergström–Boyce model for nonlinear finite rubber viscoelasticity: theoretical aspects and algorithmic treatment for the FE method, Comput. Mech., 44, 809-823; Spathis, G., Kontou, E., (2007). Modelling of nonlinear viscoelasticity at large deformations, Journal of Materials Science, Volume 43, Number 6, 2046-2052]

	The scientific literatures published by Prof. Amin got wide citations in current literatures published in Nature, Mechanics of Materials, Journal of Engineering Mechanics (ASCE), International Journal of Plasticity, European Journal of Mechanics: Part A: Solids, Acta Mechanica, Applied Numerical Mathematics, Archive of Mechanics, Computational Mechanics, International Journal of Mechanical Science, Springer Proceedings in Physics, Smart Materials and Structures, Journal of Elastomers and Plastics and Journal of Material Engineering and Performance. This shows the application of the fundamental research in diversified areas.
Recent fundamental research in the field of development of methodology for repair and retrofitting of non-compliant structures	The recent garment factory-building collapses in Bangladesh have raised awareness of the necessity of strengthening existing factory buildings to achieve building safety compliance. In this context, structurally deficient columns, as one of the most critical members in a structure, are a major focus in strengthening noncompliant buildings.
	Furthermore, in flexural retrofitting, the application of externally bonded carbon-fibre-reinforced polymer (CFRP) pultruded plates has emerged as a useful technique (externally bonded steel plates, the forerunner of CFRP plates) for enhancing the flexural capacity of reinforced-concrete (RC) beams. In such applications, the plates, which externally are bonded to the unconfined cover concrete at the tension face, often de-bond prematurely.
	Three recent successive publications from the research Group of Prof. Amin in 2015 are expected to be the key fundamental observations towards rationalizing the strengthening techniques for axial and flexural members. Estimation of design parameters for axial strengthening will be useful, particularly for Bangladesh that uses dilatable low strength concretes. The identification of design parameters in prevention of de-bonding in flexural strengthening will be useful for future development of design codes globally.
Recent fundamental research on development of methods for producing green concrete by best utilizing the demolished recycled concrete	Bangladesh is a densely populated country depending largely on her agricultural products. In this country, there is an upcoming need to demolish the old low-rise buildings and replace those with high rise ones for housing its increasing population and gradual industrialization. Recycling stone and brick aggregate concretes by crushing and converting them into coarse aggregates and fines for use in new concreting is an established trend.
	Fundamental contribution of Prof. Amin in 2015 on identifying the occurrence, origin and quantification of residual cementing properties of recycled aggregates and fines from demolished brick and stone aggregate concrete open the door for appropriate utilization of existing resources. This promotes saving of cultivable land by reducing the demands of clay bricks used for new concrete making but also extends the possibility of reducing the cement content while using recycled aggregates and fines. All these points do have significant counts in the context of environmental protection and conservation of nature.

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Major Areas of Research and Collaboration:

Research	- Development of constitutive models for rubber and FE implementation of models for simulation - Design and performance optimization of base isolation bearings and expansion joints. - Corrosion in steel under atmospheric exposure conditions of Bangladesh - FE modelling of shells, domes and arches - Curing behaviour of concrete - Recycling of demolished concrete - Investigating the residual cementing properties in concrete - Development of NDT correlations for concrete - Structural behaviour of low strength reinforced concrete - Study the dynamic behaviour of pedestrian bridges - Failure analysis and forensic investigations - Measurement and specimen preparations Further details of current research results and accomplishments are available at the URL located at http://saifulamin.info/ http://teacher.buet.ac.bd/samin/
Collaboration Partners	- Saitama University, University of Tokyo, Tohuko University, Osaka University, Daido University, Japan - JFe Steel Corporation, Japan - Japan Rubber Bearing Fabricators' Association - Kawakin-Core Tech, Japan - University of Kassel and University of Federal Armed Forces Munich, Germany - Military Institute of Science and Technology, Bangladesh - Dhaka University, Bangladesh - Chittagong University of Engineering and Technology, Bangladesh

Awards:

FY2016 JSCE International Outstanding Collaboration Award for continuous efforts and remarkable contribution to the development of infrastructures in Bangladesh, excellent leadership and remarkable achievements in building a cooperative relationship in the field of structural engineering between Bangladesh and Japan, and commitment to furthering the bond of friendship between the two countries through technical and cultural exchanges.

Fellow on Presidential Invitation, Institution of Civil Engineers, United Kingdom.

Research Fellow, Alexander von Humboldt Foundation, Germany, since 2007. The "*Alexander von Humboldt-Stiftung für Naturforschung und Reisen*" (Alexander von Humboldt Foundation for Nature Research and Travel) was established in Berlin 18 months after the death of Alexander von Humboldt in 1860. It supports highly qualified foreign students, later academics, and

doctoral candidates during their stay in Germany. Every year, the Alexander von Humboldt Foundation enables more than 2,000 researchers from all over the world to spend time researching in Germany on a highly competitive basis. The Foundation maintains a network of more than 26,000 Humboldtians from all disciplines in over 140 countries worldwide - including 50 Nobel Prize winners.

Visiting Professor, Faculty of Aerospace Engineering, University of Federal Armed Forces Munich, Germany, during February 2007-August 2007 to work in the field of characterization of thermo-mechanical properties of rubber under large deformation and supervise doctoral/graduate level research works.

Visiting Professor in the Institute of Mechanics, University of Kassel, Germany, during August -November 2004 to undertake a three-month long joint fundamental research work in the field of nonlinear continuum mechanics with application to structural analysis of polymeric materials. The study was financed through German Academic Exchange Service (*Deutscher Akademischer Austauschdienst;* DAAD) from the German Public Funds to carryout academic research in the Federal Republic of Germany.

Recipient of Ministry of Education, Science and Culture of the Government of Japan (Monbusho) scholarship for undertaking doctoral research in the Saitama University, Japan.

Recipient of Malik Akram Hossain Gold Medal 1996 for securing first position in BSc. Engg. (Civil).

Received University Merit Scholarships during the academic sessions 1989-90, 1990-91 and 1991-92 for outstanding academic results.

Recipient of F.R. Khan Scholarship awarded by BUET while pursuing third year undergraduate studies at BUET in 1991-92 session.

Received Secondary and Higher Secondary Education Board Scholarship for excellent scholastic performance in Higher Secondary Certificate (HSC) Examination during the session 1987~1989.

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A Selection of Professional Experience other than Research & Teaching:

Between 2005 to Date	• Consultant of Bangladesh Bridge Authority for Identification of Cracks in the 4.8 km long Bangabandhu Jamuna Bridge in 2006, the longest bridge of Bangladesh. • Advisor to the Bangladesh Bridge Authority for Repair and Strengthening of in the 4.8 km long Bangabandhu Jamuna Bridge, the longest bridge of Bangladesh. • Team Leader for Structural Health Monitoring of 4.8 km long Bangabandhu Jamuna Bridge during 2014-2015, the longest bridge of Bangladesh. • Team Leader for Repair and Rehabilitation of Meghna and Meghna-Gumti Bridges, Roads and Highways Department, Bangladesh in 2012, the two important bridges of Bangladesh to maintain connectivity between Dhaka, the Capital and Chittagong, the major port City. • Expert to the Bangladesh Bridge Authority in Dhaka Elevated Expressway PPP Project (2016-date). • Team Leader for identification of problems and solutions for Khodarhat Bridge, Roads and Highways Department, Bangladesh & Mahananda and Meghna Bridges of Local Government Engineering Department in 2012-2013. • Team Leader for renovation of Boral Bridge and Koidanga Bridge of Bangladesh Railway to increase the vertical clearance. • Team Leader for technical advices in design of several prestressed concrete and steel bridges up to 100m and 115m span of Roads and Highways Department, Bangladesh during 2011-2014 in Gopalgong and Sunamgonj districts. • Team Leader for Strengthening of Gausia Market, many other market places and commercial facilities in introduction of fibre reinforced polymer and micro-concrete jacketing technique during 2006-2015. • National Expert Committee to Investigate the Collapse of Bohoddarhat Flyover during Construction in 2012. • Investigation of Spectrum Sweater Factory Building Collapse in 2005. • Team Leader for Technical Services in Construction of 60-90m Telecommunication Towers for Bangladesh Police as its Dhaka-Chittagong Microwave Backbone and Dhaka City CCTV Surveillance network in 2009. • Team Leader for Structural Safety Assessment of over 100 commercial and industrial buildings aftermath of Rana Plaza Collapse 2013 and Nepal Earthquake 2015. • Advisor, Updating of Bangladesh National Building Code 2015. • Development of technical knowhow for non-destructive tests in assessing concrete strengths. • Development of technical knowhow for assuring qualities of rubber and polymeric materials for bridges and structural strengthening.

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Technical Papers:

Peer-reviewed Journals

1. Amin, A.F.M.S., Hasnat, A., Khan, A.H. & Ashiquzzaman, M. (2016). Residual cementing property in recycled fines and coarse aggregates: Occurrence and quantification, Journal of Materials in Civil Engineering, 18(4), 04015174-1. Permalink: http://dx.doi.org/10.1061/(ASCE)MT.1943-5533.0001472
2. Choudhury, M.S.I., Amin, A.F.M.S., Islam, M.M., Hasnat, A. (2016). Effect of confining pressure distribution on the dilation behavior in FRP-confined plain concrete columns using stone, brick and recycled aggregates, Construction and Building Materials, 102, 541-551. Permalink: http://dx.doi.org/10.1016/j.conbuildmat.2015.11.003
3. Hasnat, A., Islam, M. M., & Amin, A. F. M. S. (2015). Enhancing the Debonding Strain Limit for CFRP-Strengthened RC Beams Using U-Clamps: Identification of Design Parameters. Journal of Composites for Construction, 04015039. Permalink: http://dx.doi.org/10.1061/(ASCE)CC.1943-5614.0000599
4. Islam, M. M., Choudhury, M. S. I., & Amin, A.F.M.S. (2015). Dilation Effects in FRP-Confined Square Concrete Columns Using Stone, Brick, and Recycled Coarse Aggregates. Journal of Composites for Construction, 04015017. Permalink: http://dx.doi.org/10.1061/(ASCE)CC.1943-5614.0000574
5. Hossain, M., Amin, A.F.M.S., & Kabir, M.N. (2015). Eight-chain and full-network models and their modified versions for rubber hyperelasticity: a comparative study. Journal of the Mechanical Behavior of Materials, 24(1-2), 11-24.
6. Nguyen, D.A., Dang, J., Okui, Y., Amin, A.F.M.S., Okada, S., & Imai, T. (2015). An improved rheology model for the description of the rate-dependent cyclic behavior of high damping rubber bearings. Soil Dynamics and Earthquake Engineering, 77, 416-431.
7. Amin, A. F. M. S., Bhuiyan, A. R., Hossain, T., & Okui, Y. (2015). Nonlinear Viscosity Law in Finite-Element Analysis of High Damping Rubber Bearings and Expansion Joints. Journal of Engineering Mechanics, 141, 04014169-1. Permalink: http://dx.doi.org/10.1061/(ASCE)EM.1943-7889.0000888
8. Razzaq, M. K., Okui, Y., Bhuiyan, A. R., Amin, A., Mitamura, H., & Imai, T., (2012). Application of Rheology Modeling to Natural Rubber and Lead Rubber Bearings: A Simplified Model and Low Temperature Behavior. Structural Engineering/Earthquake Engineering, JSCE, 29(2), 40-55.
9. Hossain, M. F., Molla, M. A. I., Masum, S. M., Rana, A. A., Amin, AFMS, Chowdhury, R.S., Sultana, S., & Karim, M.M., (2012). Chemical and Sedimentological Characterization of Moulvibazar Silica Deposit of Bangladesh as Standard Sand, International Journal of Basic & Applied Sciences, IJBAS-IJENS Vol:12 No:06, 170-176.

	10. Amin, A.F.M.S., Haque, M.M., Siddiqi, M.Z.R., Rahman, M.A., Islam, M.S., & Alam, M. K., (2012). Use of selected silica deposits of Bangladesh as standard sand in testing compressive strength of hydraulic cement mortars: A proposal for strength correlation, Journal of Civil Engineering, IEB, Journal of Civil Engineering (IEB), 40 (2), 181-202. 11. Amin, A.F.M.S., Lion, A., Hofer, P., (2010). Effect of Temperature History on the Mechanical Behavior of a Filler-Reinforced NR/BR Blend: Literature Review and Critical Experiments, Journal of Applied Mathematics and Mechanics / Zeitschrift fur Angewandte Mathematik und Mechanik, 90(5), pp. 347-369. 12. Amin, A.F.M.S., Lion, A., Sekita, S., Okui, Y., (2006a). Nonlinear dependence of viscosity in modeling the rate-dependent response of natural and high damping rubbers in compression and shear: Experimental identification and numerical verification, Int. J. Plast., 22(9), 1610-1657. 13. Amin, A.F.M.S., Wiraguna, S.I., Bhuiyan, A.R., Okui, Y. (2006b). Hyperelasticity model for FE analysis of natural and high damping rubbers in compression and shear, J. Engrg. Mech., ASCE, 132(1), 54-64. Permalink: http://dx.doi.org/10.1061/(ASCE)0733-9399(2006)132:1(54) 14. Amin, A.F.M.S., Alam, M.S., Okui, Y. (2003). Measurement of lateral deformation of natural and high damping rubbers in large deformation uniaxial tests, J. Testing Eval., ASTM, 31(6), 524-532. 15. Amin, A.F.M.S., Alam, M.S. and Okui, Y. (2002). An improved hyperelasticity relation in modeling viscoelasticity response of natural and high damping rubbers in compression: experiments, parameter identification and numerical verification, Mechanics of Materials, 34, 75-95. 16. Amin, A.F.M.S., Alam, M.S. and Okui, Y. (2001). Nonlinear Viscoelastic Response of Elastomers: Experiments, Parameter Identification and Numerical Simulation, Journal of Structural Engineering, JSCE, 47A, pp. 181-192. 17. Ahmad, S. and Amin, A.F.M.S., (1998). Effect of Curing Conditions on Compressive Strength of Brick Aggregate Concrete, Journal of Civil Engineering, Institution of Engineers, Bangladesh, Vol. CE26, No.1, pp. 37-49.
Conference proceedings	1. Amin, A.F.M.S. & Okui, Y. (2015). Design, construction and maintenance of bridges in Bangladesh: In the past, present and future, Keynote Paper, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III, August 21-22, 2015, Dhaka, Bangladesh, pp. 57-76. DOI: 10.13140/RG.2.1.4005.8082 2. Choudhury, M.S.I., Tobita, R., Amin, A.F.M.S. & Matsumoto, Y.

(2015). Experimental investigation on dynamic characteristics of Meghna bridge at different structural conditions, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III, August 21-22, 2015, Dhaka, Bangladesh, pp. 466-475. DOI: 10.13140/RG.2.1.2432.9449

3. Amin, A.F.M.S., Islam, M.M., Fuad, N., Choudhury, M.S.I., Hasnat, A. & Amanat, K.M. (2015). Shift in the natural frequencies of the deck of Bangabandhu Jamuna bridge due to CFRP strengthening, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III, August 21-22, 2015, Dhaka, Bangladesh, pp. 456-460. DOI: 10.13140/RG.2.1.3481.5204
4. Noor, S.T., Amin, A.F.M.S. & Khan, A.J. (2015). Numerical investigation of a counter measure to control local scour around a bridge pier: A new source of bridge vibration, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III, August 21-22, 2015, Dhaka, Bangladesh, pp. 204-211. DOI: 10.13140/RG.2.1.4792.2409
5. Amin, A.F.M.S., Amanat, K.M., Ahsan, R. & Rahmatullah, R. (2015). Renovation of two century-old steel truss railway bridges to increase the vertical clearance, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III, August 21-22, 2015, Dhaka, Bangladesh, pp. 561-568. DOI: 10.13140/RG.2.1.2695.0889
6. Amin, A.F.M.S., Amanat, K.M., Islam, M.M. & Bhuiyan, M.A.R. (2015). Structural adequacy of a deformed prestressed concrete girder in Khodarhat bridge: An assessment utilizing filed vibration data and FE computations, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III, August 21-22, 2015, Dhaka, Bangladesh, pp. 461-465. DOI: 10.13140/RG.2.1.1646.5122
7. Hasan, M.S., Okui, Y., Takai, H. & Amin, A.F.M.S. (2015). Responses from laminated rubber bearing under compression and rotation via FE analysis, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III, August 21-22, 2015, Dhaka, Bangladesh, pp. 340-344. DOI: 10.13140/RG.2.1.4267.9522
8. Sobhan, M.A., Amin, A.F.M.S., (2010). Recent trend and futuristic vision of bridge development in Bangladesh, Country Paper, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-II, August 8-10, 2010, Dhaka, Bangladesh, pp. 3-11.
9. Bhuiyan, A.R., Nguyen, D.A., Okui, Y., Amin, A.F.M.S., (2010). Effect of modeling approaches on seismic response prediction of base isolated highway bridges, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-II, August 8-10,

2010, Dhaka, Bangladesh, pp. 326-335.

10. Maksud-Ul-Alam, M., Amin, A.F.M.S., (2010). Pedestrian induced vibrations in footbridges: Reappraisal of code provisions, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-II, August 8-10, 2010, Dhaka, Bangladesh, pp. 344-351.
11. Amanat, K.M., Amin, A.F.M.S., Hossain, T.R., Kabir, A., Rouf, M.A., (2010). Cracks in the box girders of Bangabandhu Jamuna Multipurpose Bridge-Identification of causes based on FE analysis, Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-II, August 8-10, 2010, Dhaka, Bangladesh, pp. 451-460.
12. Bhuiyan, A.R., Okui, Y., Razzak, M.K., Amin, A.F.M.S., (2010). Earthquake resistant design of highway bridges using laminated rubber bearings: An approach for modeling hysteretic behavior based on experimental characterization of rheology properties, Proceedings, 3rd International Earthquake Symposium, Jointly organized by Bangladesh Earthquake Society (BES) and Bangladesh University of Engineering and Technology (BUET), Bangladesh, Dhaka, March 5-6, 2010, pp. 381-389.
13. Amin, A.F.M.S., and Lion, A., (2009). Temperature dependence of Mullins softening-healing phenomena: An outline for theoretical description based on experiments, In G. Heinrich, M. Kaliske, A. Lion & S. Reese (eds), Constitutive Models for Rubber VI, pp. 497-503. Balkema.
14. Lion, A., Amin, A.F.M.S., Okui, Y., (2007). Experimental investigation and constitutive modeling of high damping rubber, 11th International Seminar on Elastomers, "Kautschuk Gummi und Kunststoffe", Freiburg, Germany, September, 23 - 27, 2007.
15. Bhuiyan, A.R., Amin, A.F.M.S., Hossain, T., Okui, Y., (2007). Nonlinear viscosity law for rate-dependent response of high damping rubber: FE implementation and verification, Constitutive Models for Rubber V-Boukamel, Laiarinandrasana, Meo, Verron (eds), 2008, Taylor & Francis Group, London, ISBN 978-0-415-45442-1, pp. 274-284. Proceedings of 5th European Conference for Constitutive Models for Rubber, Paris, 4-7 September 2007.
16. Amin, A.F.M.S., Hossain, T.R., Habib, A. (2005). Vibration serviceability requirement in the design of arch-supported suspended footbridge, Proceedings of the Japan-Bangladesh Joint Seminar on Advances in Bridge Engineering, 10 August 2005, Dhaka, Bangladesh, pp. 13-22.
17. Amin, A.F.M.S., and Okui, Y. (2004). High damping rubber for base isolation bearings: mechanical behavior and constitutive modeling, Proceedings of the Conference on Filler Reinforcement of Rubber held in the Geological Society, London on 14 September 2004, pp 51-

57. Organised by Rubber in Engineering Committee of the Institute of Materials, Minerals and Mining, London, UK.
18. Wiraguna, S.I., Yamada, K., Amin, A.F.M.S., and Okui, Y. (2003a). Behavior of high damping rubber in simple shear deformation, CD Proceedings of Temu Ilmiah XI, ISSN 0918-7685, pp. 41-46.
19. Wiraguna, S.I., Yamada, K., Amin, A.F.M.S., and Okui, Y. (2003b). Constitutive model for high damping rubber: experimental facts and mathematical modeling, CD Proceedings of the East Asia-Pacific Conference on Structural Engineering and Construction, Bali, Indonesia, 16-18 December 2003).
20. Amin, A.F.M.S., Alam, M.S. and Okui, Y. (2001). An Improved Hyperelasticity Relation For Modeling Strain Rate Dependency Of High Damping Rubber, CD Proceedings of 56th Annual Conference of Japan Society of Civil Engineers, Kyushu, Japan, October 2001.
21. Amin, A.F.M.S., Alam, M.S. and Okui, Y. (2001). Development of Rate Dependent Constitutive Model for Elastomers, Creative Systems in Structural and Construction Engineering, Singh ed., Balkema, Rotterdam, pp. 623-628.
22. Wadud, Z., Amin, A.F.M.S. and Ahmad, S. (2001). Voids in Coarse Aggregates: An Aspect Overlooked in the ACI Method of Concrete Mix Design, Creative Systems in Structural and Construction Engineering, Singh ed., Balkema, Rotterdam, pp. 423-428.
23. Amin, A.F.M.S., Alam, M.S. and Okui, Y. (2001). A Constitutive Model for Simulating Viscoelastic Response from High Damping Rubber, Proceedings of 3rd International Summer Symposium, JSCE, Tokyo, Japan, August 2001.
24. Amin, A.F.M.S., Alam, M.S. and Okui, Y. (2000). Hyperelasticity Modelling of High Damping Rubber and Finite Element Simulation, CD Proceedings of 55th Annual Conference of Japan Society of Civil Engineers, Sendai, Japan, September 2000, I-A8.
25. Alam, M.S., Takanezawa, S., Amin, A.F.M.S. and Okui, Y. (2000). Mechanical Behaviour of Elastomers Under Compression and Its Microstructure, CD Proceedings of 55th Annual Conference of Japan Society of Civil Engineers, Sendai, Japan, September 2000, I-A9.
26. Amin, A.F.M.S. and Ahmad, S. (1999). Thick Shell Finite Element in the Analysis of Helicoidal Star Slab, Civil and Environmental Engineering Conference (C&EEC) - New Frontiers and Challenges, 8-12 November 1999, AIT, Bangkok, Thailand, Vol. I, pp. 9-16.
27. Amin, A.F.M. S., Ahmad, S. and Wadud, Z. (1999). Effect of ACI Concrete Mix Design Parameters on Mix Proportion and Strength, Civil and Environmental Engineering Conference (C&EEC) - New Frontiers and Challenges, 8-12 November 1999, AIT, Bangkok, Thailand, Vol. III, pp. 97-106.
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	Graduate Program, Saitama University, Japan, 5-6 March 2008. 8. High Damping Rubber in Earthquake Resistant Design of Structures and Development of Constitutive Models for Rubber, Seminar on Applied Mechanics Series, McGill University, Canada, 6th August 2007. 9. High Damping Rubber in Earthquake Resistant Design of Structures and Development of Constitutive Models for Rubber, Seminar on Applied Mechanics Series, Department of Building Civil & Environmental Engineering, Concordia University, Canada, July 26, 2007. 10. High Damping Rubber for Base Isolation Bearings: Experimental Characterization, Constitutive Modelling and FEM Implementation, Department of Mechanical Engineering, Technical University of Braunchweig, Germany, 03 May 2007. 11. Application of High Damping Rubber for Base Isolation Bearings, Faculty of Aerospace Engineering, University of Federal Armed Forces Munich, Germany, 28 March 2007. 12. High Damping Rubber for Base Isolation Bearings: Experiments and Constitutive Modelling, Lecture Series on Mechanics, Institute of Mechanics, University of Kassel, Germany, 30 October 2004.
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Editorial Works for Proceedings	1. Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-III & Centennial Celebration of Hardinge Bridge, August 21-22, 2015, Dhaka, Bangladesh. Organized jointly by the Bangladesh Group of the International Association for Bridge and Structural Engineering and Japan Society of Civil Engineers. Institution of Civil Engineers, UK, Bangladesh; American Society of

Civil Engineers Bangladesh IS; Institution of Engineers, Bangladesh; Japan Concrete Institute and Japan Prestressed Concrete Institute were the co-organizers. The proceedings features 5 keynote addresses supported by 74 additional technical papers from 10 countries of Asia, Europe, North America and Australia in six major areas of bridge engineering i.e. History and Planning; Materials, Analysis, Design and Construction; Design for Dynamic Forces; Geo-environmental Issues; Administration and Monitoring; Repair, Renovation and Retrofitting. 21-22 August 2015. 651 pages. www.iabse-bd.org

2. Proceedings of the Fourth Annual Paper Meet and International Conference on Civil Engineering, Organized by the Civil Engineering Division, The Institution of Engineers, Bangladesh. 22-24 December 2011, Dhaka, Bangladesh. American Society of Civil Engineers, Institution of Civil Engineers, UK, Bangladesh University of Engineering and Technology, Bangladesh Group of IABSE were the other supporters. 442 pages. http://iebconferences.info/
3. Proceedings of the IABSE-JSCE Joint Conference on Advances in Bridge Engineering-II, August 8-10, 2010, Dhaka, Bangladesh. Organized jointly by the Bangladesh Group of the International Association for Bridge and Structural Engineering and Committee of Steel Structures Japan Society of Civil Engineers. American Society of Civil Engineers and Institution of Civil Engineers, UK, Bangladesh were the co-organizers. The proceedings featured 6 keynote addresses supported by 56 technical papers from 11 countries of Asia, Europe, North America and Australia in five major areas of bridge engineering i.e. History and Planning; Materials, Analysis, Design and Construction; Design for Dynamic Forces; Geo-environmental Issues; Administration, Maintenance and Monitoring. 8 August 2010. 594 pages. www.iabse-bd.org
4. Proceedings of the National Seminar on Engineers' Role in Developing a Safer Mega City Organized by Dhaka Centre, The Institution of Engineers, Bangladesh on the occasion of Annual General Meeting 2009, 19 December 2009, Dhaka, Bangladesh. 82 pages.
5. Proceedings of the Japan-Bangladesh Joint Seminar on Advances in Bridge Engineering with special attention to Steel & Composite Construction Jointly Organized by the Civil Engineering Division, The Institution of Engineers, Bangladesh and Committee of Steel Structures, Japan Society of Civil Engineers, 10 August 2005, 168 pages.
6. Souvenir of the Japan-Bangladesh Joint Seminar on Advances in Bridge Engineering with special attention to Steel & Composite Construction, Jointly Organized by the Civil Engineering Division,

The Institution of Engineers, Bangladesh and Committee of Steel Structures, Japan Society of Civil Engineers, featuring the engineering details of major bridges of Bangladesh, 10 August 2005, 74 pages.

7. Proceedings of the National Seminar on, Engineering for Millennium Development Goals Organized by The Institution of Engineers, Bangladesh on the occasion of 49th Annual General Meeting 14-16 May 2005, Chittagong, Bangladesh. 85 pages.
8. Proceedings of the Third Annual Paper Meet and International Conference on Civil Engineering, Organized by the Civil Engineering Division, The Institution of Engineers, Bangladesh. 9-11 March 2005, Dhaka, Bangladesh. 540 pages.
9. Proceedings of the National Seminar on Role of Engineers in Poverty Reduction Organized by The Institution of Engineers, Bangladesh on the occasion of 48th Annual General Meeting 20-22 January 2004, Dhaka, Bangladesh. 116 pages.
10. Proceedings of the National Seminar on Globalization and the Challenges for the Developing Countries: Bangladesh Perspective. Organized by The Institution of Engineers, Bangladesh on the 48th Annual General Meeting. 07 January 2003, Chittagong, Bangladesh. 61 pages

A Selection of Services rendered to Professional Bodies:

Between 2005 to date	Editor, Journal of Civil Engineering, Institution of Engineers, Bangladesh [2006 to date]
	Member Secretary, Board of Accreditation for Engineering and Technical Education, Bangladesh. The highest authority in Bangladesh to decide the fabric of engineering education. http://www.baete.org.bd/
	Member, Civil Engineering Divisional Committee, Bangladesh Standards and Testing Institution (BSTI), responsible for enacting and revising standards for all civil engineering construction materials. [2013-2016]
	General Secretary, International Association for Bridge and Structural Engineering, Bangladesh Group. [2010 to date]
	Member, Scientific Committee, 38th IABSE Symposium, Geneva, Switzerland, September 23-25, 2015 on 'Structural Engineering - a solution provider to global challenges'.
	Member Secretary, Steering Committee to organize the IABSE-JSCE International Conference on Advances in Bridge Engineering-III in association with the Japan Society of Civil Engineers and ICE (UK), ICE Centre Bangladesh, ASCE Bangladesh IS, Institution of Engineers, Bangladesh, Japan Concrete Institute and Japan Pre-stressed Concrete Institute as the co-organizers. The details of the organization can be found at: www.iabse-bd.org. One of the major themes of the Conference was the "Centennial Celebration of

Hardinge Bridge [1915-2015]".

Member Secretary, Steering Committee to organize the IABSE-JSCE International Conference on Advances in Bridge Engineering-II in association with the Committee of Steel Structures, JSCE.

Member, Scientific Committee, 36th IABSE Symposium, Kolkata, India, September 24-27, 2013 on 'Long Span Bridges and Roofs - Development, Design and Implementation'.

Council Member of the Dhaka Centre, Institution of Engineers, Bangladesh. [2004-2005 & 2009-2010]

Member of the Executive Committee, Civil Engineering Division, Institution of Engineers, Bangladesh. [2004-2010]

Member-Secretary, Seminar Committee, Dhaka Centre, Institution of Engineers, Bangladesh. [2009-2010]

Member, ICT Committee, Dhaka Centre, Institution of Engineers, Bangladesh. [2009-2010]

Member, Executive Committee, BUET Teachers' Association [2009]

Member, International Advisory Committee, 12th International Conference of International Association for Computer Methods and Advances in Geomechanics; 1-6 October, 2008, Goa, India.

Member-Secretary of the Technical Committee (2004-2005 & 2006-2008) of Civil Engineering Division, IEB.

Member, Organizing Committee for Celebration of Engineers' Day 2006, Institution of Engineers, Bangladesh.

Member, Editorial Board of the Third Annual Paper Meet and International Conference on Civil Engineering being organized by the Civil Engineering Division, Institution of Engineers, Bangladesh and held on 9-11 March 2005.

Coordinator, Steering Committee and Member-Secretary, Organizing Committee for organizing the Japan-Bangladesh Joint Seminar on Advances in Bridge Engineering held in Dhaka, Bangladesh on 10 August 2005. The seminar was jointly organized by the Committee of Steel Structures, JSCE and the Civil Engineering Division, Institution of Engineers, Bangladesh (IEB).

Member, Scientific Committee, US-Bangladesh Workshop on Innovation in Windstorm/Storm Surge Mitigation, Dhaka, LGED Bhaban, 19-21 December 2005.

Member of the Editorial Board for reviewing and scrutinizing papers for the National Seminar on Engineering for Millennium Development Goals scheduled to be held in Chittagong, Bangladesh as a part of the 49th Annual Convention of the IEB during 6-9 February 2005.

Other Notable Distinctions

- First Position in order of merit in BSc Engg among 180 students of civil engineering.
- Highest score in undergraduate thesis in 1996 surpassing all previous records of the Department of Civil Engineering, BUET.
- Fifth position in order of merit in Dhaka Board Higher Secondary School Certificate Examination 1989.

PERSONAL INFORMATION

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-signed

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