Journal of Automation and Control Engineering, 2013, Volume 2 Issue 1

- [12] C.U. Hardwicke, "Recent developments in applying smart structural materials." JOM, ABI/INFORM Trade & Industry, 2003, 55: 15-16
- [13] MS. Alam, MA. Youssef, and M. Nehdi. "Utilizing shape memory alloys to enhance the performance and safety of civil infrastructure: a review." *Canadian Journal of Civil Engineering*, 2007, 34(9): 1075-1086
- [14] T.W. Duerig, "Engineering aspects of shape memory alloys." London: Butterworth-Heinemann, 1990.
- [15] C. Menna, F. Auricchio, D. Asprone. "Applications of Shape Memory Alloys in Structural Engineering." *Shape Memory Alloy Engineering*, 2015, ISBN 978-0-08-099920-3
- [16] W. Chang and Y. Araki. "Use of shape-memory alloys in construction: a critical review." ICE Proceedings Civil Engineering, 2016, 169. 87-95. 10.1680/jcien.15.00010
- [17] D.C. Lagoudas, "Introduction to Shape Memory Alloys." Smart Lab at TAMU, 2002. http://martensite.tamu.edu/overview/overview.html. Dec. 2002
- [18] M. Dolce and Cardone D, "Mechanical behavior of shape memory alloys for seismic application 1. Martensite and Austenite NiTi bars subjected to torsion", *International Journal of Mechanical Sciences*; 2001, Vol. 43, pp. 2631–56
- [19] K H Ip "Energy dissipation in shape memory alloy wire under cyclic bending", *Smart Materials and Structures*; (2000), Vol. 9, pp. 653–9
- [20] Y. Liu, Xie Z and Humbeeck J V "Cyclic deformation of NiTi shape memory alloys", *Materials Science and Engineering*, (1999), pp. A273–275:673–8
- [21] L. Orgeas, Liu, Y., and Favier, D. "Experimental study of mechanical hysteresis of NiTi during ferroelastic and superelastic deformation" *Journal de physique*, (1997). IV, 7: C5-477-C5-482
- [22] S. Miyazaki, Imai, T., Igo, Y., and Otsuka, K. "Effect of cyclic deformation on the pseudoelasticity characteristics of Ti-Ni alloys" *Metallurgical Transactions*, (1986), A, 17: 115-120
- [23] I. Muller, and Wilamski, K. "A Model for Phase Transformation in Pseudoelastic Bodies." *II Nuova Cimento*, (1980), 57B, 1980, pp.238-318
- [24] F. Falk, "Model Free Energy, Mechanics, and Thermodynamics of Shape Memory Alloys." *Acta Metallurgica et Materialia*, (1980), Vol. 28, 1980, pp.1773-1780
- [25] K.H. Hoffman, and Zheng, S.M. "Uniqueness for Nonlinear Coupled Equations Arising from Alloy Mechanism," *Technic Report No.14*, *Center for Applied Mathematics, Purdue University*, 1986
- [26] V. Kafka, "Inelastic mesomechanics" World Scientific Publication, Co., Singapore, New Jersey, Hong Kong, 1987. 10
- [27] D. Brandon, and R.C. Rogers, "Constitutive Laws for Pseudo-elastic Materials." *Journal of Intelligent Material Systems and Structures*, Vol.3, 1992, pp.333-346. 11
- [28] E.J. Graesser, and F.A. Cozzarelli, "Extension of a One-dimensional Model for Hysteresis to Three Dimensions: Procedure and Verification, High Temperature Constitutive Modeling: Theory and Experiment," *Ph.D dissertation, State University of New York at Buffalo, New York*, (1990)
- [29] Y. Ivshin, and T.J. Pence, "A Thermomechanical Model for a One Variant Shape Memory Materials." *Journal of Intelligent Material Systems and Structures*, Vol. 5, 1995, pp.455-473
- [30] RT. Leon, R. DesRoches, J. Ocel, G. Hess, S. Liu, "Innovative beam column connections using shape memory alloys." *Smart Struct Mater Smart Syst Bridg Struct Highw* 2001;4330:227e37 (SPIE, Newport Beach, CA, USA).
- [31] J. Ocel, R. DesRoches, RT. Leon, WG. Hess, R. Krumme, JR. Hayes, et al. (2004) "Steel beam-column connections using shape memory alloys" J Struct Eng ASCE 2004;130(5):732-40
- [32] MA. Youssef, MS. Alam, M. Nehdi, "Experimental investigation on the seismic behavior of beam-column joints reinforced with superelastic shape memory alloys" J Earthq Eng 2008;12(7):1205-22
- [33] MS. Alam, MA. Youssef, M. Nehdi "Analytical prediction of the seismic behaviour of superelastic shape memory alloy reinforced concrete elements" *Eng Struct* 2008;30(12):3399-411
- [34] M. Rahman and A. Hasnat. "Response Surface Methodology based Multi- Objective Optimization of Stock Bridge Damper for Pump Induced Floor Vibration." *International Conference on Computation, Automation and Knowledge Management (Iccakm - 2020)*
- [35] M. Rahman, and A. Hasnat. "Modified Roof-Top Garden as a Tuned Mass Damper for Vibration Control of Building Structure Under

Earthquake Excitation." Sonargaon University Journal, 2018, Vol 2, Issue 2

- [36] M. Ashrafuzzaman, M. Rahman, T. Tafsirojjaman, and A. Hasnat. "Seismic Performance Assessment of Laminated Rubber Bearing on Kadamtaly Flyover." *Sonargaon University Journal*, 2016, 1. 90 – 97
- [37] K. Wilde, P. Gardoni, Y. Fujino, "Base isolation system with shape memory alloy device for elevated highway bridges" *Engineering Structures* 2000; 22:222–9
- [38] M. Dolce, D. Cardone, R. Marnetto, "SMA re-centering devices for seismic isolation of civil structures" *Proceedings of SPIE 2001*;4330: 238–49
- [39] P. Soroushian, K. Ostowari, A. Nossoni, H. Chowdhury, "Repair and Strengthening of Concrete Structures through Application of Corrective Posttensioning Forces with Shape Memory Alloys" *Transportation Research Record*, 2001(1770); p.20-26
- [40] M. Motavalli, C. Czaderski, A. Bergamini, L. Janke, "Shape memory alloys for civil engineering structures – on the way from vision to reality" *Architecture civil engineering environment (ACE)*, 2009, No. 4/2009
- [41] P.C. Hall, "Laser welding nitinol to stainless-steel" 4th International Conference on Shape Memory and Superelastic Technologies, *Pacific Grove*, (2003), *Calif.*, 4-8. Edited by A.R. Pelton and T. Duering. SMST Society Inc., Menlo Park, Calif. pp. 219-228.



Mr. Abul Hasnat received his Bachelor of Science degree from of Civil and Environmental Dept. Engineering from Islamic University of Technology (IUT). He completed his Masters in Science in Structural Engineering from Bangladesh University Engineering of and Technology (BUET). Currently, he is

working as Assistant Professor in Faculty of Engineering, American International University-Bangladesh (AIUB). He has several Local and International publications in the related field.



Safkat Tajwar Ahmed is currently working as a lecturer at the Department of Civil Engineering of Sonargaon University (SU), Dhaka. His work focuses on the transportation engineering field, specifically traffic safety, comfort and other service quality attributes. Mr. Ahmed has published a number of conference

papers and received awards in academic competitions. He completed his BSc in Civil Engineering from Islamic University of Technology (IUT) in 2017 and currently, he is planning to pursue higher studies abroad.



Hafiz Ahmed completed his Bachelor of Science in Civil Engineering from Islamic University of Technology (IUT). He is currently doing his MBA in HRM from Khulna University. He has worked in Crown Cement and is now involved in the trading business of construction materials in South Bengal region. He has worked on a

few research projects and published multiple conference papers. He is set to leave for Australia for higher studies in his field.