Abdullah-Al-Amin

Senior Engineer, Tire Mechanics, Bridgestone Americas Technical Center
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EDUCATION

2018	Ph.D.	**Case Western Reserve University**	Mechanical & Aerospace Engineering
2014	M.S.	**The University of Akron**	Mechanical Engineering
2009	B.S.	**Bangladesh University of Engineering and Technology**	Mechanical Engineering

PROFESSIONAL POSITIONS

January 2018 ~ Present	**Senior Engineer**	Bridgestone Americas Technical Center
August 2013 ~ December 2017	**Graduate Research Assistant**	Case Western Reserve University
August 2010 ~ July 2013	**Graduate Research Assistant**	The University of Akron
June 2010 ~ August 2010	**Lecturer**	Green University of Bangladesh
February 2010 ~ May 2010	**Lecturer**	College of Aviation Technology, Bangladesh
October 2009 ~ May 2010	**Adjunct Lecturer**	Green University of Bangladesh

HONORS AND AWARDS

- VentureWell Stage I grant, VentureWell, Boston; USA (November 2016)
- Contest Runner-Up, Superconductivity News Forum (SNF), Applied Superconductivity Conference (October 2016)
- Financial Assistance, Applied Superconductivity Conference, Denver, Colorado; USA (September 2016)
- Fellowship, MIT Professional Education, Multiscale Material Design, Boston, USA (Summer 2016)
- Graduate Student Travel Award, Graduate School, Case Western Reserve University (May 2016)
- ISMRM Educational Stipend, 23rd annual meeting of ISMRM, Singapore City, Singapore (May 2016)
- ISMRM Educational Stipend, 22nd annual meeting of ISMRM, Toronto, Canada (May 2015)
- University Blazer, Bangladesh University of Engineering and Technology, Dhaka. (September 2008)
- Merit Scholarship, Government of Bangladesh (2004 – 2008)

VOLUNTEER SERVICES

- Reviewer, Composite Structures [Impact Factor: 4.829] (January 2018 – Present)
- Award Committee, Tire Society (August 2018 – Present)

PROFESSIONAL MEMBERSHIP

- Tire Society (2018 – Present)
- Society of Automotive Engineering (2018)
- United States Association for Computational Mechanics (2018)
- IEEE Council of Superconductivity (2016 – 2017)
- International Society of Magnetic Resonance in Medicine (2015-2016)

JOURNAL PUBLICATIONS

J1. Sultana N, Amin A, Metin D, Gaston N, “Unveiling the structures and electronic properties of CH 3 NH 3 PbI 3 interfaces with TiO_2, ZnO, and SnO_2: a first-principles study”, Journal of Materials Science, p. 1-15, August 2019.

J2. Poole C, Amin A, Baig T, Martens M, “Mechanical analysis of an MgB2 1.5 T MRI main magnet protected using Coupling Loss Induced Quench”, Cryogenics, Volume 100, p. 18-27, June 2019.

J3. Amin A A, Sabri L A, Poole C R, Baig T N, Deissler R J, Rindfleisch M, Tomsic M, Doll D, Akkus O, Martens M, “Computational homogenization of the elastic and thermal properties of superconducting composite MgB_2 wire” Composite Structures, Volume 188, p. 313-329, March 2018.

J4. Deissler R J, Baig T, Charles P, Amin A, Doll D, Tomsic M, and Martens, "A Computational Study to Find an Optimal RRR Value for a 1.5 T Persistent-Mode Conduction-Cooled MgB_2 MRI Magnet from a Quench Protection Point of View.", IEEE Trans. Appl. Supercond, Volume 99, Issue 4, June 2017

J5. Baig T, Al Amin A, Deissler R J, Sabri L, Poole C, Brown R W, Tomsic M, Doll D, Rindfleisch M, Peng X and others, "Conceptual designs of conduction cooled MgB_2 magnets for 1.5 and 3.0 T full body MRI systems.", Superconductor Science and Technology, Volume 30, Issue 4, March 2017

J6. Amin A A, Baig T N, Deissler R J, Sabri L A, Doll D, Tomsic M, Akkus O and Martens M A, "Mechanical Analysis of MgB_2 Based Full Body MRI Coils Under Different Winding Conditions.", IEEE Trans. Appl. Supercond, Volume 27, Issue 4, June 2017

J7. Deissler R J, Baig T, Poole C, Amin A, Doll D, Tomsic M and Martens M, "Numerical simulation of quench protection for a 1.5 T persistent mode MgB_2 conduction-cooled MRI magnet.", Superconductor Science and Technology, Volume 30, Issue 2, December 2016

J8. Amin A A, Baig T, Deissler R J, Yao Z, Tomsic M, Doll D, Akkus O and Michael Martens, "A multiscale and multiphysics model of strain development in a 1.5 T MRI magnet designed with 36 filaments composite MgB_2 superconducting wire.", Superconductor Science and Technology, Volume 29, Issue 5, March 2016.

J9. Mojumder S, Amin A A, and Islam M M, "Mechanical properties of stanene under uniaxial and biaxial loading: A molecular dynamics study," Journal of Applied Physics, Volume 118, Issue 12, September 2015

J10. Amin A, Jagtiani A, Vasudev A, Hu J, and Zhe J, "Soft microgripping using ionic liquids for high temperature and vacuum applications.", Journal of Micromechanics and Microengineering, Volume 21, Issue 12, December 2011

CONFERENCE PROCEEDINGS

C1. AA Amin, B Bhusal, TN Baig, RJ Deissler, L Sabri, O Akkus, and MA Martens, "A comparative study of coil winding techniques of a full body 1.5 T MgB_2 based MRI magnets.", ISMRM 25th annual meeting & exhibition, Hawaii, USA, April 2017

C2. AA Amin, TN Baig, RJ Deissler, L Sabri, D Doll, M Tomsic, O Akkus and MA Marten, "Effect of Mechanical Support Conditions of Winding on the Strain Development of a Composite MgB_2 Based Full Body, MRI Coil.", Applied Superconductivity Conference, Denver, Colorado, USA, October 2016

C3. RJ Deissler, TN Baig, CR Poole, AA Amin, D Doll, M Tomsic, M Martens, "A Computational Study to Find an Optimal RRR Value for a 1.5 T Persistent-Mode Conduction-Cooled MgB_2 MRI Magnet from a Quench Protection Point of View.", Applied Superconductivity Conference, Denver, Colorado, USA, October 2016

C4. AA Amin, B Bhusal, TN Baig, RJ Deissler, L Sabri, O Akkus, and MA Martens, "Variation in strain characteristics for multiscale multiphysics models of a 1.5T conduction cooled MRI system based on a 36 filament MgB_2 composite wire.", ISMRM 24th annual meeting & exhibition, Singapore City, Singapore, May 2016

C5. AA Amin, TN Baig, Z. Yao and MA Martens, "Stress and Strain Sensitivity Study of 1.5T Conduction Cooled MgB_2 Magnet Design.", ISMRM 23rd annual meeting & exhibition, Toronto, Canada, May 2015

PATENTS

P1. Deissler R J, Baig T N, Amin A A, Brown R W, Grimberg B G, “Magneto-Optical detection and discernment of biofluid crystals.” February 28, 2019, US 2019/0064113 A1

INVITED TALKS

I1. “Building the Next Generation Magnetic Resonance Imaging (MRI) Machines”, October 2017, Intel Corporation, Oregon, USA.

I2. “Next Generation Magnetic Resonance Imaging (MRI) Magnet”, August 2017, Bridgestone Americas, Ohio, USA.

I3. "A comparative study of coil winding techniques of a full body 1.5 T MgB2 based MRI magnets.", April 2017, ISMRM 25th annual meeting & exhibition, Hawaii, USA.

I4. "Effect of Mechanical Support Conditions of Winding on the Strain Development of a Composite MgB2 Based Full Body, MRI Coil.", October 2016, Applied Superconductivity Conference, Denver, Colorado, USA.

I5. "A Computational Study to Find an Optimal RRR Value for a 1.5 T Persistent-Mode Conduction-Cooled MgB2 MRI Magnet from a Quench Protection Point of View.", October 2016, Applied Superconductivity Conference, Denver, Colorado, USA.

I6. "Variation in strain characteristics for multiscale multiphysics models of a 1.5T conduction cooled MRI system based on a 36 filament MgB2 composite wire.", May 2016, ISMRM 24th annual meeting & exhibition, Singapore City, Singapore.

I7. "Stress and Strain Sensitivity Study of 1.5T Conduction Cooled MgB2 Magnet Design.", May 2016, ISMRM 23rd annual meeting & exhibition, Toronto, Canada.

I8. “High throughput microparticle separation on curved microchannel based on inertial microfluidics.”, September 2013, Intel Corporation, Oregon USA.

References

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