

CV of Prof Dr Md Enamul Hoque

(Updated on 17 April 2023)

<p>Dr Md Enamul Hoque PhD (NUS, Singapore), PGCHE (Nottingham Uni, UK), FHEA (UK); FIMechE (UK), CEng (UK) Professor, Department of Biomedical Engineering Faculty of Engineering Military Institute of Science and Technology (MIST) Mirpur Cantonment, Dhaka - 1216 Bangladesh Email: enamul1973@gmail.com Tel: +8801730496139 (Cell)</p> <p>https://scholar.google.com/citations?hl=en&user=aRvzrEAAAJ</p> <p>Scopus preview - Hoque, M. Enamul - Author details - Scopus</p> <p>https://orcid.org/0000-0003-0393-6771</p> <ul style="list-style-type: none">○ Total Working Experience: 23 Years (Since 1999)○ Academic Experience: ~ 15 Years (Since 2007)○ Areas of Research Interests: Biomaterials, Bioceramics, Biocomposites, Biofabrication, Biomechanics, Biomedical Implants, Nanomaterials, Nanotechnology, Rapid Prototyping Technology, 3D Printing, Rehabilitation Engineering, Stem Cells, Tissue Engineering, and so on.○ Plenary Speech: 1○ Keynote Speech: 5○ Invited Speech: 18○ Scientific Session Chair: 8○ Professional Seminar/Training/Workshop Attended: 41○ Countries Travelled/Lived in (Total 15): Bangladesh (Mother Land), Australia, Brunei, Canada, China, Hong Kong, India, Japan, Korea, Malaysia, Saudi Arabia, Singapore, Thailand, UK, USA	<p>Major Scholarly Achievements</p> <ul style="list-style-type: none">○ PhD Student Supervised: ~ 10○ Professional Fellowship/ Membership: 10○ Scientific Awards: 6○ Research Supervision: 89 (1 Postdoc + 10 PhD + 11 M.Eng. + 67 Bachelors)○ Edited Special Journal Issue: 5○ Journal Articles: 131 (111 Published + 20 Under Review)○ Conference Presentations: 100○ Books: 18 (11 Published + 7 Under Review)○ Book Chapters: 97 (70 Published + 27 Under Review)○ Citation: 3451 (Google Scholar) https://scholar.google.com/citations?hl=en&user=aRvzrEAAAAJ○ h-index: ~ 27○ i-10 index: ~ 70○ Journal Editorship: 10○ Journal Reviewer: 12○ External Examiner: Total 30 (4 Book Proposal + 3 Research Proposal + 8 PhD Theses + 15 Masters Theses)○ Conference/Seminar Organized: 58○ Research Grants Received: ~ USD 300,000 (Three Hundred Thousand US Dollars)
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Interpersonal Skills:

Punctual, sincere, committed and well-organized academic with 23 years of experience in globally diverse working environments. Enjoy teamwork (especially, team leadership and decision-making) and also work on own initiative. Communicates respectfully and comfortably at all required levels with professional standards and integrity

Research Devices/Systems Developed:

- ✓ Developed a Customized Desktop Robot Based Rapid Prototyping (DRBRP) System to Fabricate 3D Object/Scaffold
- ✓ Developed a Customized Electrospinning System to Fabricate Nanofibre Matrix/Scaffold

Academic Qualifications:

Degree/Certificate & University/Organization	Year of Completion
PGCHE (Post Graduate Certificate in Higher Education) University of Nottingham , UK (10 th in UK and 103 rd in QS World University Rankings 2022)	25 July 2015
PhD (Division of Biomaterials/Biomedical Engineering, Department of Mechanical Engineering) National University of Singapore (NUS), Singapore (1st in Asia and Globally 11th in QS World University Rankings 2022) Thesis Title: Design and Development of Tissue Engineering Scaffolds Using Rapid Prototyping Technology Thesis Supervisor: Prof Dietmar Hutmacher Highly Cited Scientist in Bioprinting (citation rank: 1); https://scholar.google.com/citations?user=LtVox2wAAAAJ&hl=en	07 December 2007
M.Eng. (Division of Biomaterials/Biomedical Engineering, Department of Mechanical Engineering) National University of Singapore (NUS), Singapore Thesis Title: Development of a Novel Hybrid Fibrous Scaffold for Bioartificial Liver Assist Devices Thesis Supervisor: Prof Seeram Ramakrishna; Highly Cited Scientist in Materials Engineering (citation rank: 1); https://scholar.google.com/citations?user=a49NVmkAAAAJ&hl=en	14 April 2003
B. Sc. Eng. (Materials & Metallurgical Engineering) Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh; Top Most Technical University in Bangladesh; 185th in QS World Ranking (Engineering and Technology)	September 1998 CGPA 3.73 (out of 4.00) Merit Position: 3rd (Class Size 20 Stu.)

Professional Fellowship/Membership:

- 1) C.Eng. (Chartered Engineer) Equivalent to P.Eng. (Professional Engineer), Certified by Engineering Council, UK; Since 24 August 2015
- 2) Fellow, Higher Education Academy, UK; Since 09 June 2015
- 3) Fellow, Institute of Mechanical Engineering (IMEchE), UK; Since 24 August 2015
- 4) Member, Royal Society of Chemistry, UK; Since 26 June 2020
- 5) Member, Institute of Materials, Minerals and Mining (IOM3), UK, Since 01 June 2014
- 6) Member, Tissue Engineering and Regenerative Medicine International Society (TERMIS), USA; Since 01 June 2005
- 7) Member, World Academy of Science, Engineering and Technology; Since 18 July 2018
- 8) Member, Institute for Engineering Research and Publication (IFERP); Since 09 April 2020
- 9) Member, Malaysian Tissue Engineering and Regenerative Medicine Society (MTERMS), Malaysia; Since 01 Jan 2008
- 10) Member, Institute of Materials Malaysia (IMM), Malaysia; Since 01 June 2014

Career History:

Date of Employment	Position, Organization and Responsibilities
01 January 2018 – To Date	Professor Department of Biomedical Engineering, Faculty of Engineering Military Institute of Science and Technology (MIST) Mirpur Cantonment, Dhaka – 1216, Bangladesh Responsibilities: Teaching, Research and Administration
08 Sept 2015 – 15 Sept 2017	Associate Professor and Head of Department Department of Biomedical Engineering, College of Engineering King Faisal University, Al-Hofuf, Al-Ahsa, Saudi Arabia Responsibilities: Teaching, Research and Administration
01 January 2011 – 31 August 2015	Associate Professor and Head of Bioengineering Division Department of Mechanical, Materials & Manufacturing Engineering; University of Nottingham (UK, China, Malaysia) Malaysia Campus Responsibilities: Teaching, Research and Administration
29 August 2007 – 31 December 2010	Assistant Professor Department of Mechanical, Materials & Manufacturing Engineering; University of Nottingham (UK, China, Malaysia) Malaysia Campus Responsibilities: Teaching & Research
05 May 2000 – 31 July 2007	Research Scholar Division of Bioengineering, Department of Mechanical Engineering National University of Singapore (NUS), Singapore Responsibilities: Postgraduate research, mentoring undergraduate final year research projects, laboratory demonstration
01 March 1999 – 30 April 2000	Teaching Assistant Department of Materials and Metallurgical Engineering Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh Responsibilities: Assistance to teaching and research

Administrative Roles:

- 1) **Chairman, Accreditation Board**, Department of Biomedical Engineering, Faculty of Engineering, Military Institute of Science and Technology (MIST), Bangladesh: January 2020 – To date
- 2) **President, Board of Scholarship Policy**, Military Institute of Science and Technology (MIST), Bangladesh: November 2021 – To date
- 3) **President, Syllabus Review Board**, Department of Biomedical Engineering, Faculty of Engineering, Military Institute of Science and Technology (MIST), Bangladesh: January 2020 – To date
- 4) **Member, Board of Research Policy**, Military Institute of Science and Technology (MIST), Bangladesh: November 2021 – To date
- 5) **Member, Faculty Recruitment Committee**, Department of Biomedical Engineering, Faculty of Engineering, Military Institute of Science and Technology (MIST), Bangladesh: January 2018 – To date
- 6) **Member, Postgraduate Admission Committee**, Department of Biomedical Engineering, Faculty of Engineering, Military Institute of Science and Technology (MIST), Bangladesh: January 2018 – To date
- 7) **Head of Department**, Department of Biomedical Engineering, King Faisal University, Kingdom of Saudi Arabia: January 2016 – December 2016
- 8) **Founding Head of Bioengineering Division**, Faculty of Engineering, **University of Nottingham Malaysia Campus**: Jan 2010 – Dec 2013
- 9) **Member of Academic Advising Unit**, College of Engineering, King Faisal University: Oct 2016 – Sept 2017
- 10) **Member of Quality & Academic Accreditation Unit**, College of Engineering, King Faisal University: Oct 2016 – Sept 2017
- 11) **Member of ABET** (Accreditation Board for Engineering and Technology) Accreditation Committee, College of Engineering, King Faisal University: Sept. 2015 – Sept 2017
- 12) **Member of NCAAA** (National Commission for Academic Accreditation & Assessment) Accreditation Committee, College of Engineering, King Faisal University: Sept. 2015 – Sept 2017
- 13) **Faculty Representative for PGCHE** (Post Graduate Certificate in Higher Education) Course, **University of Nottingham Malaysia Campus**: Jan 2013 – Dec 2015
- 14) **Member of Accreditation Committee**, Faculty of Engineering, **University of Nottingham Malaysia Campus**: Jan 2010 – Dec 2015
- 15) **Member of Library Liaison Committee**, **University of Nottingham Malaysia Campus**: Jan 2009 – Dec 2015
- 16) **Departmental Online Documents Coordinator**, Department of Mechanical, Materials & Manufacturing Engineering; **University of Nottingham Malaysia Campus**: Jan 2010 – Dec 2015

Academic Scholarships:

Date of Scholarship	Scholarship & Awarding Organization
2003-2006	PhD Research Scholarship National University of Singapore (NUS), Singapore
2000-2002	M. Eng. Research Scholarship National University of Singapore (NUS), Singapore
1994-1998	Undergraduate Technical Scholarship and Dean's List Award Bangladesh University of Engineering & Technology (BUET), Bangladesh
1989-1991	Merit Scholarship Bangladesh Education Board, Bangladesh

Awards/Honors:

Award/Honors	Awarding Organization/ Date of Award
Excellent Researcher Recognition	Military Institute of Science and Technology (MIST), Dhaka, Bangladesh; 03 Feb 2022
Outstanding Nano-scientist Award	International Workshop on Recent Advances in Nanotechnology and Applications (RANA-2018), 7 - 8 September 2018, AMET University, Chennai, India
Best Lecturer	University of Nottingham Malaysia Campus, 15 December 2011
Best Poster Award	1) Postgraduate Research Showcase, University of Nottingham Malaysia Campus, Malaysia, 23 Sept 2014 Poster Title: Ecofriendly Isolation of Nano Crystalline Cellulose 2) Global Research Workshop. University of Nottingham Malaysia Campus, Malaysia, 23 – 27 April 2012 Poster Title: Increasing the Lifespan of Human Joint Implants 3) 3 rd International Workshop on Biomodeling and Bioprinting, Singapore, 10 - 11 May 2006 Poster Title: Study of Structural Anisotropy of Scaffolds Developed By Solid Free Form Fabrication Technique
2 nd Poster Award	Research Presentation and Competition, University of Nottingham Malaysia Campus, 27th April 2011. Poster title: Processing of Biopolymers into 3D Tissue Engineering Scaffolds. Postgraduate.
3 rd Poster Award	Research Poster Competition, University of Nottingham, UK, 27th April 2011 Poster Title: Biocompatible Coating on Biomedical Implant
Plenary Speaker	1) 2nd International Conference & Exhibition on Materials Science & Engineering (Materials Science - 2013), 7 - 9 October 2013, Las Vegas, USA.

<p>Keynote Speaker (05)</p>	<ol style="list-style-type: none"> 1) 7th Annual World Congress of Smart Materials-2023, 08-10 February 2023, Sapporo, Japan 2) Advanced Technologies in Rapid Product Development. International Conference on Advanced Automotive and Mechanical Engineering (INCAAMS 2021), 2-3 July 2021, India (Virtual). 3) International Conference on Science and Technology for Celebrating the Birth Centenary of Bangabandhu (ICSTB-2021), 11-13 March 2021, Dhaka, Bangladesh. 4) International workshop on Recent Advances in Nanotechnology and Applications (RANA-2018), 7 - 8 September 2018, AMET University, Chennai, India 5) Postgraduate Symposium on Technology Biocomposite 2015, Universiti Putra Malaysia, Kuala Lumpur, Malaysia, 03 March 2015
<p>Invited Speaker (17)</p>	<ol style="list-style-type: none"> 1) International Pathogens Research eConference (Pathogens-eCon2022), 30 November 2022, London (UK) to 01 December 2022 Tokyo (Japan) 2) International Online Conference on Nano Materials (ICN 2022), 12-14 August 2022, Kerala, India 3) 5th International Webinar on Chemistry and Pharmaceutical Chemistry, 08-09 July 2022, Kington, United Kingdom 4) 2nd Online International Conference on Materials Science and Nanomaterials, 13-14 August 2021, USA. 5) International Conference on Polymer Science and Composite Materials, 05-07 July, 2021, Bucharest, Romania (Virtual). 6) International Conference on Multidisciplinary Sciences and Advanced Technologies (SICMSAT'2020), Webinar (India), 29-30 June, 2020. 7) International Conference on Biomathematics and Modeling (ICBM-19), 31 August 2019, Guwahati, Assam, India. 8) 2nd International Conference of Bangladesh Stem Cell & Regenerative Medicine Society, 04 November 2018, Dhaka, Bangladesh 9) 3rd International Conference on Medical Physics in Radiation Oncology and Imaging (ICMPROI-2018), Dhaka, Bangladesh, 10-12 March, 2018 10) 4th International Conference on Nanomedicine and Tissue Engineering (ICNT 2016) Kottayam, Kerala, India, 12-14 August 2016 11) 13th International Conference on Environment, Ecosystems and Development (EED 2015), Kuala Lumpur, Malaysia, 23 – 25 April 2015 12) 9th International Materials Technology Conference and Exhibition (IMTCE 2014), Kuala Lumpur, Malaysia, 13 – 16 May 2014 13) Tissue Processing and Cell Culture Workshop, Kuala Lumpur, Malaysia, 11 – 14 Nov 2013 14) Biomedical Engineering in Healthcare Conference 2013, Kuala Lumpur, Malaysia, 3 – 4 July 2013 15) Tissue Engineering Society Malaysia (TESMA) Seminar Series 2011, Kuala Lumpur, Malaysia, 19–26 Oct 2011 16) 3rd Annual Congress of Regenerative Medicine & Stem Cell 2010, Shanghai, China, 5-7 Dec 2010 17) 3rd Malaysian Tissue Engineering & Regenerative Medicine (MTERMS) Scientific Meeting 2010, Malaysia, 13-14 Oct 2010

	18) 3rd World Congress of Industrial Biotechnology 2010, Dalian, China, 25-27 July 2010
Scientific Session Chair (08)	<ol style="list-style-type: none"> 1) 7th Annual World Congress of Smart Materials-2023, 08-10 February 2023, Sapporo, Japan 2) 5th International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2021), 18-20 November 2021, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh. 3) International Conference on Science and Technology for Celebrating the Birth Centenary of Bangabandhu (ICSTB-2021), 11-13 March 2021, Dhaka, Bangladesh. 4) 2nd International Conference of Bangladesh Stem Cell & Regenerative Medicine Society, 04 November 2018, Dhaka, Bangladesh 5) International workshop on Recent Advances in Nanotechnology and Applications (RANA-2018), 7-8 September 2018, AMET University, Chennai, India 6) 4th International Conference on Nanomedicine and Tissue Engineering (ICNT 2016) Kottayam, Kerala, India, 12-14 August 2016 7) 9th International Materials Technology Conference and Exhibition (IMTCE 2014), Kuala Lumpur, Malaysia, 13 – 16 May 2014 8) 2nd International Conference and Expo on Material Science & Engineering (Materials Science-2013), Las Vegas, USA, 7 - 9 October 2013
Judge for Scientific Session/Competition (06)	<ol style="list-style-type: none"> 1) International workshop on Recent Advances in Nanotechnology and Applications (RANA-2018), 7-8 September 2018, AMET University, Chennai, India 2) Project competition organized during Biomedical Engineering Feast, Military Institute of Science and Technology (MIST), Dhaka; 04 October 2018 3) Scientific competition organized by Robotics Club “Robolution”, Military Institute of Science and Technology (MIST), Dhaka; 24 March 2018 4) Undergraduate Final Year Project Competition, Faculty of Engineering, Universiti Putra Malaysia; 05 June 2014 5) 4th MTERMS Scientific Meeting 2012, Langkawi, Malaysia, 3-4 June 2012 6) 3rd MTERMS Scientific Meeting 2010, Kuala Lumpur, Malaysia, 13-14 Oct 2010

Courses Teaching/Taught (in BME Department) at MIST, Bangladesh: Since Jan 2018 to Date

Courses	Role	App. No. of Students
BME 7525: Biomechanics and Medical Implants (Postgrad)	Coordinator	15
BME 7513 Biomedical Prosthetics (Postgrad)	Coordinator	10
BME 7511 Biomaterials & Nanotechnology	Coordinator	15

(Postgrad)		
BME 419 Tissue Engineering	Coordinator	40
BME411 Biomedical Transport Fundamentals	Coordinator	40
BME 408 Biomedical Implants & Braces Lab	Coordinator	40
BME 407 Biomedical Implants & Braces	Coordinator	40
BME 406 Motion Analysis and Rehabilitation Engineering Lab	Coordinator	40
BME 405 Motion Analysis and Rehabilitation Engineering	Coordinator	40
BME 307 Hospital Planning and Management	Coordinator	40
BME 305 Biomechanics	Coordinator	40
BME 303 Biomaterials	Coordinator	40
BME 207 Biomedical Instrumentation and Measurements	Coordinator	40
BME 203 Biofluid Mechanics and Heat Transfer	Coordinator	40

Courses Taught (in BME Dep) at King Faisal University, Saudi Arabia: From Sep 2015 to Sep 2017

Courses	Role	App. No. of Students
BME 440 Management of Healthcare Technology	Coordinator	30
BME 322 Biomedical Transport Phenomena	Coordinator	35
BME 320 Biomechanics	Coordinator	35
ENGR303 Thermofluids	Coordinator	35
BME 202 Molecular Biology and Genetics	Coordinator	40
ENGR 206 Electric Circuits	Co-Lecturer	90

Courses Taught (in Mechanical, Materials & Manufacturing Engineering Department) at Nottingham University Malaysia Campus: From Aug 2007 to Aug 2015

Courses	Role	No. of Students
MM3BIO Biomechanics	Coordinator	> 20
MM4RPD Rapid Product Development	Coordinator	50
MM3FRC Fibre Reinforced Composites Engineering	Coordinator	50
MM3PEA Processing of Engineering Alloys	Coordinator	55

MM3MMM Materials Models and Modes of Failure	Coordinator	65
MM2MID Materials in Design	Coordinator	110
MM2DM2 Design & Manufacture 2	Design Tutor	110
MM1DM1 Design & Manufacture 1	Design Tutor	115

Courses Taught (in Mechanical & Materials Engineering Department) at University of Malaya, Malaysia (as an Adjunct Faculty): From Aug 2007 to Aug 2015

Courses	Role	Ave. No. of Students
KMEB 4131 Corrosion Engineering	Coordinator	30
KMEB 2205 Microstructure and Phase Transformation	Coordinator	50
KMEB 1105 Materials Production	Coordinator	50

Other Courses Willing to Teach: Any course relevant to my expertise/interest in the areas of Biomedical/Mechanical/Materials/Manufacturing Engineering.

Research Activity Overview:

Research Supervision: 85 (1 Postdoc + 10 PhD + 11 M.Eng. + 63 Bachelors)

Level of Research	No. of Researchers/Students	Year of Completion
Postdoc & Research Fellow	3	2012 & 2022
Ph. D.	10 (9 completed + 1 Ongoing)	2013 – To Date
M. Eng.	11 (6 completed + 5 Ongoing)	2012 - To Date
B. Eng. (Final Year Project)	67	2008 – To Date

Research Grants Received (Total Approx. USD 337,000):

- Science and Technology Fund 2021, Ministry of Science and Technology, Bangladesh 2021.**
Project Title: Development of a CNT Integrated r-PET electrospun antibacterial/anti-viral respirator mask to combat COVID-19
Allocated Amount: Tk 400,000 (Four Lac Taka)
- Ministry of Health and Family Welfare, Bangladesh 2021.** Project Title: Therapeutic effects of pulsed electromagnetic field (PEMF) in diabetic neuropathy (Under Review)
Amount Applied For: Tk 1,26,10,000 (One Core Twenty Six Lacs and Ten Thousand Taka)
- Military Institute of Science and Technology (MIST) Research & Development Fund 2018.**
Project Title: Development of a biomedically vibrant and economically viable composite bone plate.
Allocated Amount: BDT ~ 650,000

- 4) **Military Institute of Science and Technology (MIST) Research & Development Fund 2018.**
Project Title: Design and Development of an Advanced Device for the Measurement of Hemoglobin by Non-invasive Method. **Allocated Amount: BDT ~ 50,000**
- 5) **Military Institute of Science and Technology (MIST) Research & Development Fund 2018.**
Project Title: Design and Development of a Multi-Channel Prosthetic Hand for Amputees. **Allocated Amount: BDT ~ 50,000**
- 6) **Exploratory Research Grant Scheme in 2013 (ERGS 2013; Malaysian Government Research Grant)** Project Title: Synthesis and Characterization of Graphene-Magnetite Hybrids and Their Polymer Nanocomposites.
Allocated Amount: MYR ~ 102,000
- 7) **Fundamental Research Grant Scheme in 2013, (FRGS2 2013; Malaysian Government Research Grant);** Project Title: First Principal Modelling of the Fundamental Electronic Properties of Graphene Nanoflake Materials.
Allocated Amount: MYR ~ 58,600
- 8) **Exploratory Research Grant Scheme in 2013 (ERGS 2013; Malaysian Government Research Grant).** Project Title: Exploration and characterization of kenaf fiber-based composites for prosthetic leg socket fabrication.
Allocated Amount: MYR ~ 100,000
- 9) **Dean's Undergraduate Research Scheme 2013 (DURS 2013; Nottingham University Research Grant);** Project Title: Development and degradation characterization of bioresorbable glass fibre polymer composites.
Allocated Amount: MYR ~ 30,000
- 10) **Exploratory Research Grant Scheme in 2012, ERGS 2012 (Malaysian Government Research Grant);** Project Title: Electrospun Nanofibre Matrix for Wound Healing and Antibacterial Activity - Development and In vitro Evaluation.
Allocated Amount: MYR ~ 50,000
- 11) **Malaysia Inter Doctorate Award Scheme, MIDAS Grant (Nottingham University Inter-campus PhD Research Grant) in 2009;** Project Title - Characterization and failure analysis of in-situ bone substitute materials.
Allocated Amount: Full Stipend (Estimated to be MYR ~ 200,000)
- 12) **Faculty Research Assistant Grant in 2008 (Nottingham University Research Grant).** Project Title - Design and fabrication of tissue engineering scaffolds incorporating rapid prototyping (RP) technology and synthetic biopolymers – Towards the development of a scaffold library.
Allocated Amount: Full Stipend (Estimated to be MYR ~ 200,000)

List of Project Supervision (Postdoc, PhD and M. Eng. Only):

Postdoctoral Research

- 1) Bone mesh prepared from polymeric scaffold filled with ceramic material for fixation as grafting materials – **Completed in 2012, University of Nottingham Malaysia Campus.**

PhD Projects: 10

- 1) Study on Hemodynamic Blood Flow in Presence of Arterial Stenosis and Aneurism of Complex Geometry – **Started in 2019**

Joint Supervisor – Dr Ab Hakim, Professor, Dept of Mathematics, BUET, Bangladesh

- 2) Radiation Compatible Thermoplastic Elastomers (TPEs) for Medical Applications – **Completed in 2018**

Joint Supervisor - Dr Mohammad Khalid Siddiqui (Chemical Engineering, [University of Nottingham Malaysia Campus](#); Chem Eng, University of Nottingham Malaysia Campus (UNMC)).

- 3) Ethnopharmacological Study on Herbs Available in Asian Market - **Completed in 2018**

Joint Supervisor: Dr Christophe Wiart (Pharmacy, [University of Nottingham Malaysia Campus](#))

- 4) Electrospun Nanofibre Matrix for Wound Healing and Antibacterial Activity - Development and In vitro Evaluation – **Completed in 2017**

Collaboration with Universiti Putra Malaysia (UPM). Joint Supervisors - Dr Norshariza Nordin (UPM) and Dr Albert Tshai Kim (Department of Mechanical, Materials & Manufacturing Engineering Dept; M3 Eng, [University of Nottingham Malaysia Campus](#))

- 5) Preparation and Characterization of Irradiation Modified Biocomposites Reinforced With Isolated Cellulose Nanocrystals – **Completed in 2017**

Joint Supervisors - Dr Mohammad Khalid Siddiqui (Chem Eng, [University of Nottingham Malaysia Campus](#)) and Dr Ing Kong (M3 Eng, UNMC).

- 6) First Principle Modelling of the Fundamental Electronic Properties of Graphene Nanoflake Materials – **Completed in 2017**

Joint Supervisor - Dr Jeffrey Frank Webb (M3 Eng, [University of Nottingham Malaysia Campus](#))

- 7) Preparation and properties of irradiation modified Poly ether-ether ketone (PEEK)/graphene nanoplatelets (GNP)/ hydroxyapatite nanocrystals (HAN) blend for load-bearing bioimplants – **Completed in 2017**

Collaboration with Malaysia Nuclear Agency (MNA). Joint Supervisors - Dr. Chantara Thevy Ratnam (MNA) and Dr Mohammad Khalid Siddiqui (Chem. Eng, [University of Nottingham Malaysia Campus](#))

- 8) Development of trans fatty acid (TFA) free food formulation focusing on palm-based oils and fats – **Completed in 2014**

Collaboration with the Malaysian Palm Oil Board (MPOB). Dr Miskandar Mat Sahri (MPOB) and Joint Supervisors – Dr Andrew Spowage (M3 Eng, [University of Nottingham Malaysia Campus](#))

9) Characterization and failure analysis of in-situ bone substitute materials – **Completed in 2014**. Collaborative MIDAS Project. Joint Supervisors – Dr Andrew Spowage (M3 Eng, UNMC) & Professor Paul Brown (M3 Eng, [University of Nottingham, UK](#))

10) Design and fabrication of tissue engineering scaffolds incorporating rapid prototyping (RP) technology and synthetic biopolymers – **Completed in 2013**
Collaboration with Hospital Universiti Kebangsaan Malaysia (HUKM). Joint Supervisors – Prof Ruszymah Idrus (HUKM) and Prof Ian Pashby (M3 Eng, [University of Nottingham Malaysia Campus](#))

M. Eng. Projects (Individual): 11

- 1) Green synthesized hydroxyapatite in combination with gelatin and chitosan as biocomposite scaffold crosslinked with genipin for bone tissue engineering application - **Started in 2020**
- 2) Design and development of cost-effective transfemoral prosthetic leg - **Started in 2020**
- 3) Development of a biomedically vibrant and economically viable composite bone plate - **Started in 2020**
- 4) Development of radiation-resistant materials for advanced applications - **Started in 2020**
- 5) Fabrication and performance evaluation of low-cost high impact resistant composite – **Completed in 2022**
- 6) Electrospun non-woven meshes of natural polymer blends for new generation water filtration – **Completed in 2014**
- 7) Montmorillonite/nanocellulose reinforced hybrid epoxy nanocomposite – **Completed in 2014**
- 8) Design and Development of a Prosthetic Leg – Economically Viable for Developing Countries – **Completed in 2014**
- 9) Effects of Acidic Environments on the Physical and Mechanical Properties of Conventional Dental Porcelain - **Completed in 2013**
- 10) Physical and Mechanical Characterization of Single- and Hybrid- Material Tissue Engineering Scaffolds - **Completed in 2013**
- 11) Design and Development of a Composite Pressure Vessel for Domestic Gas Storage – **Completed in 2012**

Thesis/Project Examiner: Total 30 (4 Book Proposal + 3 Research Proposal + 8 PhD Theses + 15 Masters Theses)

Book Proposals (4):

- 1) Conducting Polymers: Chemistries, Properties and Biomedical Applications. Publisher: CRC Press (Taylor & Francis Group), 2021

- 2) Sandwich Composites: Fabrication and Characterization. Publisher: CRC Press (Taylor & Francis), 2020
- 3) Agricultural Biomass Based Potential Materials. Publisher: Springer, USA, 2014
- 4) Contemporary Metallic Materials. Publisher: International Islamic University Malaysia (IIUM) Press, 2012

Research Project Report (3):

- 5) Research Project: Effects of pulsatile electromagnetic fields in treating COVID-19 patients. Ministry of Health and Family Welfare. June 2022
- 6) Research Project: Synthesis of Amides as Active Pharmaceutical Ingredients by Using Metal Oxide as Reusable Heterogeneous Catalyst. Research and Innovation Centre for Science and Engineering (RISE), Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, October 2021
- 7) Research Project: Development of Cellulose Based Wet-Spun Fiber With Improved Mechanical and Functional Properties for Wound Dressing Application. Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, January 2021

PhD Theses (8):

- 8) PhD Thesis: Investigation on Mechanical and Thermal Properties of Hybrid Fiber Reinforced Polylactic Acid (PLA) Sandwich Panel Structured Composite. Universiti Putra Malaysia, 2021.
- 9) PhD Thesis: Development of Fish Scale-Collagen Cream (CoC) From Water-In-Virgin Coconut Oil Emulsion Medium for Topical Application. Universiti Pendidikan Sultan Idris, Malaysia, December 2018.
- 10) PhD Thesis: Experimental Investigation on the Performance of Composite Leaf Spring. Anna University, Chennai, India, February 2018.
- 11) PhD Thesis: Development of Chitosan/ Fish Scales Collagen/Glycerin/Nano-ZnO 3D Porous Scaffolds for Skin Tissue Engineering and Regeneration Applications. Universiti Pendidikan Sultan Idris, Malaysia, January 2018.
- 12) PhD Thesis: Studies on Radiation Protection Methodologies for In situ Shielding By Iterative Approach and Measurement. AMET University, India, October 2017.
- 13) PhD Thesis: Synthesis, Characterization and In Vitro Response of Nano Chitosan - HA Doped with Sr, Mg and Zn. Universiti Pendidikan Sultan Idris, Malaysia, August 2016
- 14) PhD Thesis: Studies on synthesis and characterization of functional methacrylate-based polymer-metal nanocomposites. Thiruvalluvar University, India, February 2016.
- 15) PhD Thesis: Bio-nanocomposites for packaging applications: Physico-chemical properties of poly (lactic acid)/halloysite nanotube nanocomposite films. Monash University, Australia, August 2015.

Masters Theses (Total 16):

- 16) Master's Thesis: Predicting The Depth Of Anesthesia For Operating Patient Using Music-Based Spectral Features Of Eeg Signals. Military Institute of Science and Technology (MIST), Bangladesh, Jan 2023
- 17) Master's Thesis: Fabrication of Collagen-Based Hybrid Bio-nanocomposites for Skin Tissue Engineering Vaccinated by Natural Antiseptic Agent. Bangladesh University of Textiles (BUTex), Bangladesh, 19 Sep 2022.
- 18) Master's Thesis: Optimum Material Distributions for Minimizing Stresses in a Rotating Functionally Graded Material Circular Disk. Bangladesh University of Engineering & Technology (BUET), Bangladesh, July 2022.
- 19) Master's Thesis: Prediction of Ovarian Cancer from Blood Biomarker and TVUS Data Using Machine Learning Technique. Khulna University of Engineering & Technology (KUET), Bangladesh, June 2022.
- 20) Master's Thesis: Electrospinning and Functionalization of Cellulose Acetate Nanofibre, Bangladesh University of Engineering And Technology, Dhaka, Bangladesh, June 2019.
- 21) Master's Thesis: Functionalized Bionanocomposite Films based on Alginate and Pectin for Food Packaging Applications, Monash University, Australia, March 2018.
- 22) Master's Thesis: Design and Fabrication of Kenaf (*Hibiscus Cannabinus L.*) Fibre Reinforced Unsaturated Polyester Composite Shoe Shelf, Universiti Putra Malaysia (UPM), Malaysia, November 2016.
- 23) Master's Thesis: Mechanical and Ageing Characteristics of Zirconia Doped Ceramics via Microwave Sintering Technique, University Tenaga Nasional (UniTen), Malaysia, February 2016.
- 24) Master's Thesis: Mechanical Properties and Morphological Studies on Pu-Ha Biocomposite, University Tenaga Nasional (UniTen), Malaysia, February 2015.
- 25) Master's Thesis: Development of a Prefabricated Stance-Control-Orthosis to Improve Walking Ability of Handicapped Patients. University of Malaya, Malaysia, December 2014.
- 26) Master's Thesis: Electrospinning of Chitosan/Halloysite Nanocomposites For Biomedical Applications. Monash University, Australia, October 2014.
- 27) Master's Thesis: Preparation and Characterization of Poly(Ethylene Terephthalate) (PET)/Chitosan Composite for Dental Applications, University Tenaga Nasional (UniTen), Malaysia, June 2014.
- 28) Master's Thesis: Mechanical Properties and Morphological Studies On Pu-Ha Biocomposite, University Tenaga Nasional (UniTen), Malaysia, February 2014.
- 29) Master's Thesis: A Study on Optimization, Machinability and Surface Morphology of Halloysite Nanotube with Aluminium Reinforced Epoxy Matrix (HNT/Al/Ep) Composite Board for Rapid Tooling Applications, University Tenaga Nasional (UniTen), Malaysia, June 2013.

- 30) Master's Thesis: The Effect of Copper Particle Addition into Sn-3.5 Ag Solder, University of Malaya, Malaysia, January 2011.
- 31) Master's Thesis: Production of Bioethanol from Pineapple Wastes, University of Malaya, Malaysia, August 2010.

Editorial Involvements in Journal:

- 1) Guest Editor (Special Issue), Materials
- 2) Guest Editor (Special Issue), Polymers
- 3) Guest Editor (Special Issue), Open Chemical Engineering
- 4) Member of Editorial Advising Group, Cambridge Scholars Publishing
- 5) Executive Editor, Journal of Bioprocessing and Biotechniques
- 6) Editor, Regenerative Research
- 7) Editor, Journal of Applied Mechanical Engineering
- 8) Editorial Board Member, International Journal of Nanoparticles and Nanotechnology
- 9) Editorial Board Member, Journal of Biomedical Science & Applications
- 10) Editorial Board Member, Journal of Chemical Engineering Research Updates

Journal Reviewer:

- 1) Materials Today; IF: 26.943
- 2) Trends in Biotechnology; IF: 14.343
- 3) ACS Sustainable Chemistry & Engineering; IF: 8.198
- 4) Materials & Design; IF: 8.09
- 5) International Journal of Biological Macromolecules; IF: 6.953
- 6) Tissue Engineering, Part B; IF: 6.389
- 7) Materials Science and Engineering C; IF: 5.880
- 8) Arabian Journal of Chemistry; IF: 5.165
- 9) Journal of Materials Research and Technology; IF: 5.289
- 10) Biochimie; IF: 4.079
- 11) Journal of Biomaterials Science: Polymer Edition; IF: 3.18
- 12) Journal of the Mechanical Behavior of Biomedical Materials; IF: 3.902
- 13) Rapid Prototyping Journal; IF: 3.095

Conference/Seminar Organized (Total 58):

- 1) 7th Annual World Congress of Smart Materials-2023, 08-10 February 2023, Sapporo, Japan
Role: Session Chair
- 2) Global Webinar on Applied Science, Engineering and Technology (GWAET-2023) 09-10 February, 2023
Role: Organizing Committee Member
- 3) International Pathogens Research eConference (Pathogens-eCon2022), 30 November 2022, London (UK) to 01 December 2022 Tokyo (Japan)
Role: Organizing Committee Member
- 4) 4th International Conference on Biopolymers & Bioplastics (Biopolymers 2022), 14-15 November 2022, Rome, Italy
Role: Organizing Committee Member
- 5) 3rd International conference on Biomaterials & Biodevices, November 10-11, 2022, Paris, France.
Role: Organizing Committee Member
- 6) 6th International Conference on Biomaterials and Nanomaterials which will be held on October 17-18, 2022 in Rome, Italy
Role: Organizing Committee Member
- 7) 3rd International Congress of Applied Chemistry and Environment (ICACE-2022), 27-29 May 2022, Zarzis, Tunisia.
Role: Scientific Committee Member
- 8) 5th International Conference on Information and Computer Technologies (ICICT 2022), 4-6 March 2022, New York City, USA
Role: Technical Committee Member
- 9) 3rd Global Conference & Expo on Materials Science and Engineering (ISTMAE-2021), 26-27 August 2021, Amsterdam, Netherlands.
Role: Organizing Committee Member
- 10) 2nd International Conference on Biopolymers & Polymer Chemistry (ISTBPC-2021), 25-26 March 2021, Prague, Czech Republic.
Role: Organizing Committee Member
- 11) 2nd Global Conference & Expo on Materials Science and Nanoscience (ISTMSN-2021), 25-26 March 2021, Prague, Czech Republic.
Role: Organizing Committee Member
- 12) Global Congress & Expo on Nanotechnology. 21-22 October 2020, Rome, Italy.
Role: Organizing Committee Member
- 13) 2nd World Conference on By-Products of Palm Trees and Their Applications (ByPalma), 15–17 December 2020, Kuala Lumpur, Malaysia.
Role: Member of Scientific Committee

- 14) 2020 3rd International Conference on Manufacturing Technology, Materials and Chemical Engineering (MTMCE 2020), 19-21 June 2020, Hangzhou, China.
Role: Member of the International Scientific Committee
- 15) IEEE TENSYPMP 2020, 5–7 June 2020, Dhaka, Bangladesh.
Role: Biomedical Engineering Track Chair and Member of Technical Program Committee
- 16) International Conference on Electrical Engineering Research and Practice (ICEERP), 24-28 November, 2019, Sydney, Australia.
Role: Member of Organizing Committee
- 17) IEEE International Conference on Biomedical Engineering, Computer and Information Technology for Health (IEEE BECITHCON 2019), 28-30 November, 2019, Dhaka, Bangladesh.
Role: Co-Chair (Biomedical Engineering Track) and Member of Technical Program Committee
- 18) 5th International Conference on Advances in Electrical Engineering (ICAEE): Biomedical Engineering Track, 26-28 September 2019, Dhaka, Bangladesh
Role: Co-Chair (Biomedical Engineering Track) and Member of Technical Program Committee
- 19) 2nd International Translational and Regenerative Medicine Conference, April 15-17, 2019, Valencia, Spain
Role: Member of Organizing Committee
- 20) Seminar on Birth Defects: Social Awareness and Preventions, 03 March 2019, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh
Role: Scientific Session Chair
- 21) International Conference on Health and Scientific Research and Practice (iCHSRP- 2019) 19-23 January 2019, Dhaka, Bangladesh
Role: Technical Committee Member
- 22) International Conference on Robotics, Electrical and Signal Processing Techniques 2019 (ICREST 2019). 10-12 January 2019, Dhaka, Bangladesh
Role: Technical Committee Member
- 23) 4th International Conference on Crystallography & Novel Materials, November 19-20, 2018 Bucharest, Romania
Role: Member of Organizing Committee
- 24) 9th International Conference on Tissue Engineering and Regenerative Medicine, 9-10 November, 2018, Atlanta, Georgia, USA
Role: Member of Organizing Committee
- 25) Fifth International Conference on Nanomedicine and Tissue Engineering (ICNT 2018) 12-14 October 2018, Kottayam, Kerala, India
Role: International Advisory Committee

- 26) 4th International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT 2018), 13 – 15 September 2018, Military Institute of Science and Technology, Dhaka, Bangladesh
Role: Track Co-chair for Biomedical Engineering
- 27) International workshop on Recent Advances in Nanotechnology and Applications (RANA-2018), 7-8 September 2018, AMET University, Chennai, India
Role: Member of Technical Committee
- 28) Seminar on Regenerative Medicine, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh, 26 July 2018
Role: Member of Organizing Committee
- 29) 3rd International Nanotechnology Conference & Expo (Nanotech-2), 7-9 May, 2018, Rome, Italy
Role: Member of Organizing Committee
- 30) International Translational and Regenerative Medicine Conference (ITRMC), April 25-27, 2018, Rome, Italy.
Role: Member of Organizing Committee
- 31) 4th Global Nanotechnology Congress and Expo (GNCE – 2018), 16-18 April, 2018, Dubai, UAE
Role: Member of Organizing Committee
- 32) International Conference on Toxicology and Clinical Pharmacology, 14 – 16 December, 2017, Rome, Italy
Role: Member of Organizing Committee
- 33) International Conference on Molecular Spectroscopy (ICMS 2017) 8-10 December 2017, Kottayam, Kerala, India.
Role: Member of International Advisory Committee
- 34) 2nd International Congress & Expo on Biotechnology and Bioengineering (Biotechnology-2017), 25-27 September 2017, Valencia, Spain.
Role: Member of Organizing Committee
- 35) International Conference on Emerging Technologies on Nanoelectronics and Nanomedicines (ETNEM – 2017), 11 August 2017, Chennai, India.
Role: Member of Organizing Committee
- 36) Global Conference and Expo on Applied Science, Management and Technology (Applied Science-2017), 6-8 April 2017, Dubai, UAE.
Role: Member of Organizing Committee
- 37) 2nd International Nanotechnology Conference & Expo (Nanotech-2017). 03-05 April, 2017, Dubai, UAE
Role: Member of Organizing Committee

- 38) International Conference on Nanomaterials, Graphene & Liquid Crystals Manufacturing (ICNGLCM-2017), 15-17 March 2017, Goa, India
Role: Convener & Co-Chairman
- 39) 1st International Conference on Functional Nanomaterials, Graphene & Liquid Crystals Design and Applications (ICFNGLCDA 2017), 26-29 January 2017, Chennai, India.
Role: Member of Organizing Committee
- 40) Global Nanotechnology Congress and Expo (Nanotech-2016), 21-23 April 2016, Dubai, UAE.
Role: Member of Organizing Committee
- 41) International Nanotechnology Conference & Expo (Nanotech-2016), 04-06 April 2016, Baltimore, USA
Role: Member of Organizing Committee
- 42) 2nd World Congress and Expo on Nanotechnology and Materials Science, 04-06 April 2016, Dubai, UAE
Role: Member of Organizing Committee
- 43) World Congress and Expo on Materials Science & Polymer Engineering (Materials Science–2015), 26-28 November 2015, Dubai, UAE
Role: Member of Organizing Committee
- 44) World Congress on Dental Research (Dental-2015), 23 – 25 November 2015, Dubai, UAE.
Role: Member of Organizing Committee
- 45) World Congress and Expo on Nanotechnology and Materials Science (Nanotechnology – 2015), 13 – 15 April 2015, Dubai, UAE
Role: Member of Organizing Committee
- 46) 5th Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (MTERMS 2014), 17 – 19 September 2014, Kuala Lumpur, Malaysia.
Role: Member of Organizing Committee
- 47) 9th International Materials Technology Conference and Exhibition (IMTCE 2014), 13 – 16 May 2014, Kuala Lumpur, Malaysia.
Role: Member of Organizing Committee
- 48) International Conference on the Science and Engineering of Materials (ICoSEM2013), 13-14 November 2013, Kuala Lumpur, Malaysia
Role: Member of Advisory Committee
- 49) International Conference Management, Manufacturing and Materials Engineering (ICMMM 2013), 25 – 27 October 2013, Xi'an, China
Role: Member of Organizing Committee

- 50) International Conference and Exhibition on Materials Science & Engineering (Materials Science-2013), 7 – 9 October 2013, Las Vegas, USA
Role: Member of Organizing Committee
- 51) 6th International Conference on Advanced Computer Theory and Engineering (ICACTE 2013), 17-18 August 2013, Malé, Maldives.
Role: Member of Technical Committee
- 52) International Conference and Expo on Material Science & Engineering, 22-24 October 2012, Chicago-North Shore, USA.
Role: Member of Organizing Committee
- 53) 4th Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (4th MTERMS 2012). 3-4 June, Langkawi, Malaysia.
Role: Member of Organizing Committee
- 54) 7th Tissue Engineering Society Malaysia (TESMA) Seminar Series 2011. 2 May 2011, University of **Nottingham Malaysia Campus**, Semenyih, Malaysia.
Role: Chairman
- 55) 8th International Conference on Composite Science and Technology (8th ICCT). 22 – 24 March 2011, Kuala Lumpur, Malaysia.
Role: Member of Organizing Committee
- 56) International Conference on Experimental Mechanics 2010 (ICEM 2010). 29 November - 1 December 2010, Kuala Lumpur, Malaysia.
Role: Member of Organizing Committee
- 57) 3rd Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (3rd MTERMS 2010). 13-14 October 2010, Kuala Lumpur, Malaysia.
Role: Member of Organizing Committee
- 58) 2nd Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (2nd MTERMS 08), 22-23 July 2008, Kuala Lumpur, Malaysia.
Role: Member of Organizing Committee

Professional Seminar/Training/Workshop Attended (Selected): 41

- 1) Multinary Clusters – Materials with Uncommon Properties. American Chemical Society (ACS) Science Talks Virtual. 21 April 2023.
- 2) Staff Development Program. Military Institute of Science and Technology (MIST), Dhaka, Bangladesh. 13 - 14 March 2023.
- 3) International Workshop on Hybrid Composites for Railway Applications, Bangkok, Thailand (Virtual), 18 February 2022.

- 4) Staff Development Program. Military Institute of Science and Technology (MIST), Dhaka, Bangladesh. 16 - 20 January 2022.
- 5) International Online Workshop on Palm Byproducts: A Springboard to Circular Bioeconomy. Kuala Lumpur, Malaysia. 27 April 2021.
- 6) Webinar on NUS Engineering's Distinguished Leader's Lecture. Organized by Faculty of Engineering, National University of Singapore (NUS), Singapore. 19 Feb 2021.
- 7) 51st Asia Pacific Advanced Network Meeting, Islamabad, Pakistan (February 1 – 5, 2021), Patroned by Bangladesh Research and Education Network (BdREN), University Grants Commission of Bangladesh (UGC), Bangladesh.
- 8) International Webinar on Natural Products Chemistry. 29 January 2021, Organized by International Science Programme (ISP), Uppsala University, Sweden supported Research Group BAN:04, Department of Chemistry, University of Dhaka, Bangladesh.
- 9) International Webinar on Cooperativism, Self-management and Decentralized Development. 27 – 30 August 2020, Organized (Online) by Mahatma Gandhi University and Kerala Institute of Local Administration (KILA), Kerala, India.
- 10) Seminar on Explore the challenges and benefits of flexible working. 18 June 2020, Organized (Online) by Royal Society of Chemistry, UK
- 11) International Seminar on COVID-19 Testing in Pandemic Management and the Race for an Effective Vaccine, 21 August 2020, Organized (Online) by University of Dhaka, Bangladesh
- 12) International Seminar on A Journey to Chemical, Biological and Clinical Research. will be held virtually on 28 August 2020, Organized (Online) by University of Dhaka, Bangladesh
- 13) Seminar on Medical Coding Opportunities Among Health Care Professionals. 29 May 2020, Organized (Online) by GRT Institute of Engineering and Technology, Tiruttani, India
- 14)** Seminar on Sustainable Energy Sectors Development: Its challenges and Energy Security of Bangladesh. 01 October 2019, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh
- 15) Seminar on Growing Cyber Threats Around the World and Preparedness for Bangladesh. 04 August 2019, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh.
- 16) Workshop on Integrated Design Project (IDP) and Capstone Project - Towards Outcome Based Education (OBE). 03 April 2019, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh

- 17) Seminar on Firefighting - Towards Safe Living and Working Environment. April 2019, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh
- 18) Seminar on Birth Defects: Social Awareness and Preventions, 03 March 2019, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh
- 19) Seminar on Postgraduate Study Ordinance, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh, 13 August 2018
- 20) Seminar on ANSYS Software, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh, 07 August 2018
- 21) Seminar on Mental Health – A Motivational Talk, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh, 22 July 2018
- 22) AQUAawareness Seminar & Exhibition on World Water Day, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh, 01 April 2018
- 23) Seminar on Research Methodology, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh, 21 March 2018
- 24) Seminar on Fatigue Behavior of Composite Biomaterials, Military Institute of Science and Technology (MIST), Dhaka, Bangladesh, 28 January 2018
- 25) Workshop on Self Study Report for Program, King Faisal University, 6 – 7 March 2017
- 26) Workshop on Annual Program Report, King Faisal University, 29 February 2016
- 27) Workshop on Program Specifications, King Faisal University, 22 February 2016
- 28) Training on Active Teaching and Learning, King Faisal University, 2 – 3 December 2015
- 29) Training on Dignity at the Work. [University of Nottingham Malaysia Campus](#), 12 August 2015.
- 30) Training on Emotional Intelligence at the Workplace – A competitive advantage. [University of Nottingham Malaysia Campus](#), 11-12 May 2015
- 31) Training on Creative Thinking & Problem-Solving Skills. [University of Nottingham Malaysia Campus](#), 18-19 December 2014
- 32) Pilot Course on Researcher Connect. British Council, Singapore, October 2014
- 33) Training on Introduction to Development Needs Analysis and Goal-Setting for Supervisors. [University of Nottingham Malaysia Campus](#), 9 April 2014
- 34) Academic Misconduct Training. The [University of Nottingham Malaysia Campus](#), 25 March 2014

- 35) Training on Academic Misconduct, **University of Nottingham Malaysia Campus**, March 2014
- 36) Training on Higher Education (Teaching Dialogue & Teaching Development), **University of Nottingham Malaysia Campus**, Jan 2013 – Dec 2013
- 37) University-Wide Moodle Training. The **University of Nottingham Malaysia Campus**, 2 May 2012.
- 38) PhD supervision training. The **University of Nottingham Malaysia Campus**, 25 – 26 November 2010.
- 39) Seminar on Staff Development. **University of Nottingham Malaysia Campus**, Malaysia. March 13, 2008.
- 40) Workshop on M ATLAB & Simulink, Science & Technology Complex, University Technology MARA, Malaysia. March 5, 2008.
- 41) Biomechanics Course 2008. Department of Orthopaedic Surgery, University of Malaya, Malaysia. February 23-24, 2008.

Technical Skills: Trained on the Following Equipment:

<ul style="list-style-type: none"> • Confocal Laser Microscope (CLM) • Differential Scanning Calorimeter (DSC) • Fine Sputter Coater (JFC-1200) • Freeze Dryer • Light Microscope • Mercury Porosimeter1 	<ul style="list-style-type: none"> • Microplate Reader • Modern Microbraiding Machine • Scanning Electron Microscope (SEM) • Universal Testing Machine • Ultra Gas Pycnometer • Water Contact Angle Measurement
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List of Publications – Prof Dr M Enamul Hoque

Journal Papers (Total 130; 111 Published + 19 Under Review):

- 1) Adib Bin Rashid, Abu Saleh Md. Nakib Uddin, Fahima Akter Azrin, Khondokar Safin Kaosar Saad, **Md Enamul Hoque**. 3D Bioprinting in the era of 4th Industrial Revolution – Insights, Advanced Applications, and Future Prospects. Rapid Prototyping Journal (Accepted on 04 April 2023).
- 2) Md Rubel Alam, Md Abdus Shahid, Shah Alimuzzaman, Md Mehedi Hasan, **Md Enamul Hoque**. Electrospun bio-nano hybrid scaffold from collagen, Nigella sativa, and chitosan for skin tissue engineering application. Journal of Bioactive and Compatible Polymers. Published on March 30, 2023; <https://doi.org/10.1177/08839115231162365>
- 3) Adib Bin Rashid, Nazmir-Nur Showva, Md Enamul Hoque. Gelatin-based scaffolds: An intuitive support structure for regenerative therapy. Current Opinion in Biomedical Engineering. Current Opinion in Biomedical Engineering, 2023, 26, 100452; <https://doi.org/10.1016/j.cobme.2023.100452>

- 4) Shashank Shekhar, Md Enamul Hoque, Pramendra Kumar Bajpai, Habibul Islam & Bhasha Sharma. Chemical upcycling of plastics as a solution to the plastic trash problem for an ideal, circular polymer economy and energy recovery. **Environment, Development and Sustainability**, 2023 DOI: <https://doi.org/10.1007/s10668-023-03003-8>
- 5) Md Zillur Rahman, Maliha Rahman, Tariq Mahbub, Md Ashiquzzaman, Suresh Sagadevan, Md Enamul Hoque. Advanced biopolymers for automobile and aviation engineering applications. **Journal of Polymer Research**, 2023, 30, 106. DOI: <https://doi.org/10.1007/s10965-023-03440-z>
- 6) Faris AL-Oqla, **Md Enamul Hoque**. Structural Integrity and Performance of a Novel Chemically Treated Cellulosic Paper Corn / Polyester Sustainable Biocomposites. Functional Composites and Structures. DOI: [10.1088/2631-6331/acbf20](https://doi.org/10.1088/2631-6331/acbf20).
- 7) Adib Bin Rashid, Shariful Islam Shishir, Md. Azim Mahfuz, Md. Tanvir Hossain, Md Enamul Hoque. Silica Aerogel: Synthesis, Characterization, Applications, and Recent Advancements. Particle and **Particle Systems Characterization**. Published on 09 February 2023; <https://doi.org/10.1002/ppsc.202200186>
- 8) Md. Rubel Alam, Shah Alimuzzaman, Md. Abdus Shahid, Fahmida-E-Karim, **Md Enamul Hoque**. Collagen/Nigella sativa/chitosan inscribed electrospun hybrid bio-nanocomposites for skin tissue engineering. **Journal of Biomaterials Science, Polymer Edition**, 2023, 16, 1-22 DOI: [10.1080/09205063.2023.2170139](https://doi.org/10.1080/09205063.2023.2170139)
- 9) **Md Enamul Hoque**, Shifat Al Hasnayeem Riham and Md. Abdul Alim Shuvo. A cost-effective prosthetic leg: Design and development. Hybrid Advances, 2023, Volume 2, 100017; <https://doi.org/10.1016/j.hybadv.2022.100017>
- 10) Huaizhong Xu, Shinichi Yagi, Sherry Ashour, Lei Du, Md Enamul Hoque, and Lin Tan. A Review on Current Nanofiber Technologies: Electrospinning, Centrifugal Spinning, and Electro-Centrifugal Spinning. Macromolecular Materials and Engineering. Published on 26 October 2022 <https://doi.org/10.1002/mame.202200502>
- 11) **Md Enamul Hoque**, Nazmir-Nur Showva, Mansura Ahmed, Adib Bin Rashid, Sarder Elius Sadique, Tarek El-Bialy, Huaizhong Xu. Titanium and Titanium Alloys in Dentistry: Current Trends, Recent Developments, and Future Prospects. Heliyon, 2022, 8(11), e11300; <https://doi.org/10.1016/j.heliyon.2022.e11300>
- 12) Rahman S.M.A, Salah Issa, Mamdouh El Haj Assad, Sheikh Khaleduzzaman Shah, Mohammad Ali Abdelkareem, **M. Enamul Hoque**, A.G. Olabi. Performance enhancement and life cycle analysis of a novel solar HVAC system using underground water and energy recovery technique. Thermal Science and Engineering Progress, 2022, 36, 101515; <https://doi.org/10.1016/j.tsep.2022.101515>
- 13) Balaji Ayyanar Chinnapan, Marimuthu Krishnaswamy, Huaizhong Xu, **Md Enamul Hoque**. Electrospinning of Biomedical Nanofibers/Nanomembranes: Effects of Process Parameters. Polymers, 2022, 14(18), 3719; <https://doi.org/10.3390/polym14183719>

- 14) AL-Oqla, F.M., Alaaeddin, M.H., **Hoque, M.E.**, Thakur, V.K. Biopolymers and Biomimetic Materials in Medical and Electronic-Related Applications for Environment–Health–Development Nexus: Systematic Review. *Journal of Bionic Engineering* (2022). <https://doi.org/10.1007/s42235-022-00240-x>
- 15) Sankar Rajan, K. Marimuthu, C. Balaji Ayyanar, **Md Enamul Hoque**. Development and in-vitro characterization of HAP blended PVA/PEG bio-membrane. *Journal of Materials Research and Technology*. *Journal of Materials Research and Technology*, 18, 4956-4964, 2022. <https://doi.org/10.1016/j.jmrt.2022.04.130>
- 16) Md Zillur Rahman, **Md Enamul Hoque**, Md Rubel Alam, Md Abdur Rouf, Saiful Islam Khan, Huaizhong Xu, and Seeram Ramakrishna. Face Masks to Combat Coronavirus (COVID-19)—Processing, Roles, Requirements, Efficacy, Risk and Sustainability, *Polymers*, 14(7), 1296, 2022. doi: [10.3390/polym14071296](https://doi.org/10.3390/polym14071296)
- 17) Balaji Ayyanar Chinnappan, Marimuthu Krishnaswamy, Mugilan Thanigachalam, Huaizhong Xu, Saiful Islam Khan, **Md Enamul Hoque**. Fabrication, Characterization and In Vitro Assessment of Laevistrombus canarium-Derived Hydroxyapatite Particulate-Filled Polymer Composite for Implant Applications, *Polymers* 14 (5), 872, 2022. <https://doi.org/10.3390/polym14050872>
- 18) Enock Siankwilimba, Jacqueline Hiddlestone-Mumford, Bernard Hang'ombe Mudenda, Chisoni Mumba, **Md Enamul Hoque**. COVID-19 and the Sustainability of Agricultural Extension Models. *International Journal of Applied Chemical and Biological Sciences*, 3(1), 1-20, 2022. <https://identifer.visnav.in/1.0001/ijacbs-21I-05003/>
- 19) Tamrin Nuge, Xiaoling Liu, Kim Yeow Tshai, Siew Shee Lim, Norshariza Nordin, **Md Enamul Hoque**, Ziqian Liu. Accelerated wound closure: Systematic evaluation of cellulose acetate effects on biologically active molecules release from amniotic fluid stem cells. *Biotechnology and Applied Biochemistry*, 69(3), 906-919, 2022; <https://doi.org/10.1002/bab.2162>
- 20) Tawsifur Rahman, Amith Khandakar, Md Enamul Hoque, Nabil Ibtehaz, Saad Bin Kashem, Reehum Masud, Lutfunnahar Shampa, Mohammad Mehedi Hasan, Mohammad T. Islam, Somaya Al-Madeed, Susu M. Zughaier, Saif Badran, Suhail A. R. Doi, Muhammad E. H. Chowdhury. Development and Validation of an Early Scoring System for Prediction of Disease Severity in COVID-19 Using Complete Blood Count Parameters. *IEEE Access*, 9, 120422, Published 16 Aug 2021. DOI: [10.1109/ACCESS.2021.3105321](https://doi.org/10.1109/ACCESS.2021.3105321).
- 21) Biswas, M.C., Jony, B., Nandy, P.K., Chowdhury, R.A., Halder, S., Kumar, D., Ramakrishna, S., Hassan, M., Ahsan, M.A., **Hoque, M.E.**, Imam, M.A. Recent Advancement of Biopolymers and Their Potential Biomedical Applications. *J Polym Environ* (2021). Published 13 June 2021. <https://doi.org/10.1007/s10924-021-02199-y>
- 22) J Anita Lett, Suresh Sagadevan, Is Fatimah, **Md Enamul Hoque**, Yogeswaran Lokanathan, Estelle Léonard, Solhe F Alshahateet, Romana Schirhagl, Won Chun Oh. [Recent advances in natural polymer-based hydroxyapatite scaffolds: Properties and applications](#). *European Polymer Journal*, 148, 110360, 2021. <https://doi.org/10.1016/j.eurpolymj.2021.110360>.

- 23) Tamrin Nuge, Ziqian Liu, Xiaoling Liu, Bee Chin Ang, Andri Andriyana, Hendrik Simon Cornelis Metselaar, **Md Enamul Hoque**. Recent advances in scaffolding from natural-based polymers for volumetric muscle injury. *Molecules*, 26(3), 699, 2021. <https://doi.org/10.3390/molecules26030699>.
- 24) **Md Enamul Hoque**, Asif Mahmud Rayhan, Samira Islam Shaily. Natural Fiber-Based Green Composites: Processing, Properties and Biomedical Applications. *Applied Science and Engineering Progress*, 2021. [DOI: 10.14416/j.asep.2021.09.005](https://doi.org/10.14416/j.asep.2021.09.005).
- 25) Shek Rahman, Hegazy Rezk, Mohammad Ali Abdelkareem, **Md Enamul Hoque**, Tariq Mahbub, Sheikh Shah, Ahmed M. Nassef. Predicting Drying Performance of Osmotically Treated Heat Sensitive Products Using Artificial Intelligence. *CMC-Computers, Materials & Continua* 67(3), 3143-3160, 2021. [doi:10.32604/cmc.2021.015048](https://doi.org/10.32604/cmc.2021.015048)
- 26) K Karthik, D Radhika, D Gnanasangeetha, K Gurushankar, **ME Hoque**. Two-dimensional based hybrid materials for photocatalytic conversion of carbon dioxide into hydrocarbon fuels: A mini review. *Physics and Chemistry of Solid State*, 22 (1), 132-140, 2021. <https://doi.org/10.15330/pcss.22.1.132-140>
- 27) SMA Rahman, AM Nassef, H Rezk, MEH Assad, **ME Hoque**. Experimental investigations and modeling of vacuum oven process using several semi-empirical models and a fuzzy model of cocoa beans. *Heat Mass Transfer* 57, 175–188 (2021). <https://doi.org/10.1007/s00231-020-02943-5>
- 28) Mohsen Golieskardi, Meenaloshini Satgunam, Dinesh Ragurajan, **Md Enamul Hoque**, Angela Min Hwei Ng. Microstructural, Tribological, and Degradation Properties of Al₂O₃- and CeO₂-Doped 3 mol.% Ytria-Stabilized Zirconia Bioceramic for Biomedical Applications. *Journal of Materials Engineering and Performance*, 29, 2890–2897, 2020; <https://doi.org/10.1007/s11665-020-04829-3>
- 29) Md. Eaqub Ali, **Md Enamul Hoque**, SK Safdar Hossain, Manik Chandra Biswas. Nanoadsorbents for Wastewater Treatment – Next Generation Biotechnological Solution. *International Journal of Environmental Science and Technology*, Published online on 26 May 2020; DOI: <https://doi.org/10.1007/s13762-020-02755-4>
- 30) T Nuge, KY Tshai, SS Lim, N Nordin, **ME Hoque**. Characterization and optimization of the mechanical properties of electrospun gelatin nanofibrous scaffolds. *World Journal of Engineering*. Vol. 17(1), pp. 12-20, 2020; <https://doi.org/10.1108/WJE-04-2019-0119>
- 31) Varun Prasath Padmanabhan, Ravichandran Kulandaivelu, Vijayaraj Venkatachalam, Sarath Chandra Veerla, Faruq Mohammad, Hamad A. Al-Lohedan, Won Chun Oh, Romana Schirhagl, Prasanna Kumar Obulapuram, **Md Enamul Hoque**, Suresh Sagadevan. Influence of sonication towards the physicochemical and biological characteristics of selenium substituted hydroxyapatites. *New Journal of Chemistry*. Published online on 22 Sep 2020; <https://doi.org/10.1039/D0NJ03771K>
- 32) Mohsen Golieskardi, Meenaloshini Satgunam, Dinesh Ragurajan, **Md Enamul Hoque**, Angela Min Hwei Ng & Lohashenpahan Shanmuganantha (2019). Advanced 3Y-TZP bioceramic doped with Al₂O₃ and CeO₂ potentially for biomedical implant applications, *Materials Technology*. Vol. 34(8), pp. 480-489, 2019; DOI: [10.1080/10667857.2019.1578912](https://doi.org/10.1080/10667857.2019.1578912)

- 33) Varun Prasath Padmanabhan, Sankara Narayanan, T.S.N., Suresh Sagadevan, **Md Enamul Hoque** and Ravichandran Kulandaivelu. Advanced lithium substituted hydroxyapatite nanoparticles for antimicrobial and hemolytic studies. *New Journal of Chemistry*. Vol **43(47)**, pp. 18484-18494, 2019; <https://doi.org/10.1039/C9NJ03735G>
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- 3) **Md Enamul Hoque (Invited Speaker)**, Mirajul Islam Sarker. Electrospun r-PET/CNT nanofibrous Mat – Towards Development of Antibacterial Face Mask. 6th Virtual Edition of Polymers, Plastics and Composites (Virtual Polymers-2022), 08-09 December 2022, London, UK.
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- 9) Divya Pradip Roy, Md Zahirul Alam Chowdhury, Farhana Afrose, **Md Enamul Hoque**. Design and Development of a Cost-effective Prosthetic Hand for Upper Limb Amputees. 13th Biomedical Engineering International Conference (BMEiCON2021), 19-21 November 2021, Ayutthaya, Thailand.
- 10) **Md Enamul Hoque (Invited Speaker)**. Hybrid scaffolds potential for the advanced patient-specific need of tissue engineering. 2nd Online International Conference on Materials Science and Nanomaterials, 13-14 August 2021, USA.
- 11) **Md Enamul Hoque (Invited Speaker)**, Md Abu Saif Tahsin. Processing of Biomaterials Into 3D Tissue Engineering Scaffolds. International Conference on Polymer Science and Composite Materials, 05-07 July, 2021, Bucharest, Romania (Virtual).
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- 32) **M. Enamul Hoque (Keynote Speaker)**. Advanced Biomaterials (Biocomposites) in Biomedical Applications. Postgraduate Symposium on Technology Biocomposite 2015, 03 March 2015, Universiti Putra Malaysia, Kuala Lumpur, Malaysia.
- 33) A.H. Muhammad Ismail, M.S. Risby, A. Ali, S.M. Sapuan, **M.E. Hoque**. Flexural Strength and Fracture Toughness of Carbon Nanotubes (CNTs) Reinforced Epoxy Composites. International Conference on Science, Technology, Engineering and Management (ICSTEM – 2015), 3 January 2015, Singapore.
- 34) Ansari MNM, Begum S, Aini SS, Nainar SM, Ng MH and Ruszymah BHI, **Hoque ME**, Hazleen Anuar. PLA-HA Based Biocomposite for Bone Scaffold Application. BioTechnology Asia 2014, 19 - 21 November 2014, Kuala Lumpur, Malaysia.

- 35) M. Reza Ketabchi, M. Khalid Siddiqui, Ing Kong, **M Enamul Hoque**. Ecofriendly Isolation of Nano Crystalline Cellulose. Postgraduate Research Showcase, 23 September 2014, University of Nottingham Malaysia Campus, Selangor, Malaysia - **Won Best Poster Award**.
- 36) **M Enamul Hoque**, Tamrin Nuge, Tshai Kim Yeow, Norshariza Nordin. Nanometal Doped Gelatin Nanomatrix for Potential Antibacterial Wound Dressing. The Australian Biomedical Engineering Conference (ABEC 2014), 20 - 22 August 2014, Canberra, Australia.
- 37) **M Enamul Hoque**, Tan Wei Jin, Saied Hamd Mohamed, Moniruddin Chowdhury. Physical and Mechanical Characterization of Conventional Dental Porcelain: Study On Environmental Effects. 5th Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (MTERMS 2014), 17 – 19 September 2014, Kuala Lumpur, Malaysia.
- 38) Feven MM, Khalid M, **Hoque ME**, Ratnam CT. Processing and Characterization of Nanohydroxyapatite using Ultrasonic Cavitation. 5th Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (MTERMS 2014), 17 – 19 September 2014, Kuala Lumpur, Malaysia.
- 39) Sharen Aini S, Mohamed Nainar S, Shahida Begum, Ansari MNM, Vicki WV, **Hoque ME**, Ng MH and Ruszymah BHI. Biocompatibility Screening Of Biomaterials For Bone Tissue Engineering – Study Of The Osteogenic Cell Morphology And Attachment Behaviour In Vitro. 5th Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (MTERMS 2014), 17 – 19 September 2014, Kuala Lumpur, Malaysia.
- 40) **M. Enamul Hoque**, H. Meng Teh. 3D Hybrid Scaffolds for Potential Biomedical Applications: Development and Characterization. The Australian Biomedical Engineering Conference (ABEC 2014), 20 - 22 August 2014, Canberra, Australia.
- 41) **M Enamul Hoque (Invited Speaker)**, Tamrin Nuge, Tshai Kim Yeow, Norshariza Nordin, R.G.S.V. Prasad. Gelatin Electrospun Nanofibre Scaffold for Potential Wound Healing Application. [9th International Materials Technology Conference and Exhibition](#) (IMTCE 2014), 13 – 16 May 2014, Kuala Lumpur, Malaysia.
- 42) J. W. Lee, M. J. Roe, **M. E. Hoque**, A. C. Spowage, C. A. Scotchford, D. M. Grant And P. D. Brown. Characterisation of silica-doped hydroxyapatite biomedical coatings on titanium for biomedical applications. 9th International Materials Technology Conference and Exhibition (IMTCE 2014), 13 – 16 May 2014, Kuala Lumpur, Malaysia.
- 43) K.Y. Tshai, H.J. Tan, P.S. Khiew, **M Enamul Hoque**. Flammability and Smoke Density of Kenaf and Oil-Palm Fibre Composites. [9th International Materials Technology Conference and Exhibition](#) (IMTCE 2014), 13 – 16 May 2014, Kuala Lumpur, Malaysia.
- 44) Sivaruby Kanagaratanam, Sylvia Yui Swee Lian, Miskandar Mat Sahri, **M. Enamul Hoque**, Andrew Spowage. Palm oil-based solid fractions characterised based on dipalmitoyl-oleoyl-glycerol and tripalmitoyl-glycerol enhancement for food application. International Palm Oil Congress (PIPOC 2013), 19 - 22 November 2013, Kuala Lumpur, Malaysia.
- 45) Sivaruby Kanagaratnam, Miskandar Mat Sahri, **M. Enamul Hoque** and Andrew Spowage. Palm Oil Based Structural Fat in Reduced Saturated Fatty Acids Formulations, 105th AOCs Annual Meeting And Expo, 4 – 7 May 2014, Texas, USA.

- 46) **M. Enamul Hoque (Plenary Speaker)**. Advancement in Tissue Engineering Scaffold Development: Rapid Prototyping Technology. 2nd International Conference & Exhibition on Materials Science & Engineering (Materials Science - 2013), 7 - 9 October 2013, Las Vegas, USA.
- 47) S. Mohamed Nainar, Shahida Begum, M. N. M. Ansari, V. W. Vicki, **Md Enamul Hoque**, Sharen Aini Binti Shamsuddin, Angela Ng Min Hwei, Ruszymah Idrus. Biocompatibility study of a novel PLA-HA based composites for bone tissue engineering applications. National Seminar on Biopolymers & Green Composites – Emerging Science and Technology (BPGC 2013), 27 September 2013.
- 48) Y. Leng Chuan, **M. Enamul Hoque**, Ian Pashby. Prediction of patient-specific tissue engineering scaffolds for optimal design. 6th International Conference on Advanced Computer Theory and Engineering (ICACTE 2013), 17-18 August 2013, Malé, Maldives.
- 49) **M. Enamul Hoque**, Y. Leng Chuan, Ian Pashby, S. Sheren Aini, Angela Ng Min Hwei, Ruszymah Idrus. Cell Culture Efficacy of Hybrid and Single Design Tissue Engineering Scaffolds. The Annual International Conference on Science and Engineering in Biology, Medicine and Public Health (BioMedPub 2013), 16 – 17 August 2013, Jakarta, Indonesia.
- 50) **M. Enamul Hoque (Invited Speaker)**. Novel Tissue Engineering Approach Towards the Development of Bioartificial Liver Assist Devices. Biomedical Engineering in Healthcare Conference 2013, 3 – 4 July 2013, Kuala Lumpur, Malaysia.
- 51) J. W. Lee, M.J.Roe, **M. E. Hoque**, A. C. Spowage, C. A. Scotchford, D. M. Grant and P. D. Brown. Characterisation of silica-doped hydroxyapatite biomedical coatings on titanium. 8th International Materials Technology Conference and Exhibition (IMTCE 2012), 9 – 12 July 2012, Kuala Lumpur, Malaysia.
- 52) Sivaruby Kanagaratanam, **M. Enamul Hoque**, Miskandar Mat Sahri, Andrew Spowage. The Ability of Palm Stearin as Structuring Agent in Food Formulations. 8th International Materials Technology Conference and Exhibition (IMTCE 2012), 9 – 12 July 2012, Kuala Lumpur, Malaysia.
- 53) **M. Enamul Hoque**, Y. Leng Chuan, Ian Pashby. Development of PCL-PEG Hybrid Tissue Engineering Scaffolds Using Extrusion Based Rapid Prototyping System. Malaysian Tissue Engineering and Regenerative Medicine Scientific Conference (MTERMS 2012), 3 – 4 June 2012, Langkawi, Malaysia.
- 54) J. W. Lee, M.J.Roe, **M. E. Hoque**, A. C. Spowage, C. A. Scotchford, D. M. Grant and P. D. Brown. Increasing the Lifespan of Human Joint Implants. Global Research Workshop, 23 – 27 April 2012. The University of Nottingham Malaysia Campus, Malaysia – **Won the Best Poster Award**.
- 55) Sivaruby Kanagaratanam, **M. Enamul Hoque**, Miskandar Mat Sahri, Andrew Spowage. Effect of temperature on oil binding capacity of palm-based shortening. National Food Seminar 2012, 6 – 7 March 2012, Melaka, Malaysia.
- 56) **M. Enamul Hoque**, Y. Leng Chuan, Ian Pashby. Single- and hybrid-design tissue engineering scaffolds: Investigation on accelerated in vitro degradation. 1st Biotechnology World Congress (1st BWC 2012), 14 - 15 Feb 2012, Dubai, UAE.

- 57) **M. Enamul Hoque**, Y. Leng Chuan, Ian Pashby. Design and Fabrication of Hybrid Tissue Engineering Scaffold for Regenerative Therapy. 3rd International Conference in Rural Medicine, 22 – 24 November 2011, Sabah, Malaysia.
- 58) Sivaruby Kanagaratanam, Miskandar Mat Sahri, **M. Enamul Hoque** and Andrew Spowage. Oil binding capacity of palm stearin with high percentage of liquid oil. International palm Oil Congress 2011, 15 - 17 November 2011, Kuala Lumpur, Malaysia.
- 59) **M. Enamul Hoque (Invited Speaker)**, Vinayak Nambiar. Hydroxyapatite Bioceramic for Biomedical Applications: Synthesis and Characterization. 5th China Medical Biotech Forum (5th CMBF), 7 - 9 November, 2011, Beijing, China.
- 60) Sivaruby Kanagaratanam, Miskandar Mat Sahri, **M. Enamul Hoque** and Andrew Spowage. Palm Oil Solids. Palm Oil Familiarization Program, 24-28 October 2011, Johor Bahru, Malaysia.
- 61) **M. Enamul Hoque (Invited Speaker)**, L. Pui Gee. Biomass to Bioenergy: Study on the Key Parameters of the Production of Biodiesel from Renewable Sources. Low Carbon Earth Summit-2011 (LCES-2011), 19 – 26 October 2011, Dalian, China.
- 62) J. W. Lee, **M. E. Hoque**, A. C. Spowage, C. A. Scotchford, D. M. Grant, P. D. Brown. Characterization of Biomaterial Coatings for Orthopedic Implants. [Electron Microscopy and Analysis Group Conference \(EMAG 2011\)](#), 6 - 9 September 2011, Birmingham, UK.
- 63) **Md E. Hoque**, Yong L. Chuan, Ian Pashby. Computational Modeling and Simulation on Degradation of 3D Tissue Engineering Scaffolds. 9th AES-ATEMA'2011 International Conference on Advances and Trends in Engineering Materials and their Applications, 01 - 05 August, 2011, Montreal, Canada.
- 64) **M. E. Hoque**, Y. L. Chuan, Ian Pashby, Angela Ng Min Hwei, Ruszymah Idrus. Process Optimization to Improve the Processing of Poly(DL-Lactide-co-Glycolide) into 3D Tissue Engineering Scaffolds. 5th Kuala Lumpur International Conference on Biomedical Engineering (Biomed 2011), 20 - 23 June 2011, Kuala Lumpur, Malaysia.
- 65) Sivaruby Kanagaratanam, Miskandar Mat Sahri, **M. Enamul Hoque**, Andrew Spowage. Determination of stability of blends with high percentage of liquid oils. 102nd AOCS Annual Meeting and Expo, 1 - 4 May 2011, Ohio, USA.
- 66) **M. Enamul Hoque (Invited Speaker)**. Novel Biopolymers for Scaffold-Based Tissue Engineering Therapy: Towards the Optimization of Scaffold Design and Development. 3rd Annual Congress of Regenerative Medicine & Stem Cell 2010, 5-7 December 2010, Shanghai, China.
- 67) **M. Enamul Hoque (Invited Speaker)**. Rapid Prototyping Technique – Today's and Tomorrow's Technology to Develop 3D Tissue Engineering Scaffold. 3rd MTERMS Scientific Meeting 2010, 13 - 14 October 2010, Kuala Lumpur, Malaysia.
- 68) **M. Enamul Hoque**, L. Festus Oguichen, Angela Ng, Ruszymah Idrus. Physical Model of a Dynamic Bioreactor Prototype for Skin Tissue Culture. 3rd MTERMS Scientific Meeting 2010, 13 - 14 October 2010, Kuala Lumpur, Malaysia.

- 69) **M. Enamul Hoque**, Y. Leng Chuan, Ian Pashby. Modeling, Simulation and Optimization of 3D Tissue Engineering Scaffold. TERMIS-AP 2010 Annual Conference. 15 - 17 September 2010, Sydney, Australia.
- 70) **M. Enamul Hoque**, Y. Leng Chuan, Ian Pashby. Simulation on 3d tissue engineering scaffold: Influences of design parameters on porous and mechanical characteristics. World Engineering Congress 2010. 2–5 August 2010, Sarawak, Malaysia.
- 71) **M. Enamul Hoque (Invited Speaker)**. Synthetic Biopolymers for Tissue Engineering Applications: 3D Scaffold and Rapid Prototyping Technology. 3rd World Congress of Industrial Biotechnology 2010. 25-27 July 2010, Dalian, China.
- 72) **M. Enamul Hoque**, Amrit Singh and Yong Leng Chuan. Biofuel from low cost feedstock - Waste to energy. World Bioenergy 2010. 25-27 May 2010, Jonkoping, Sweden.
- 73) **M. Enamul Hoque**, L. C. Yong, Y. J. Tan, K. Zaman, T. C. Yong. Development of Biodegradable Polymer: Effect of Cross-linked Trimethylolpropane Triacrylate and Electron Beam Irradiation. 2nd International Conference on Biomedical and Pharmaceutical Engineering. 2-4 December 2009, Singapore.
- 74) **M. Enamul Hoque**, J. Jonathan Netto, M.Y. Yusof, W.S. Wan Abdullah. Assessment of Corrosion Using Advance Laser Shearography. Malaysian Metallurgical Conference 2009, 1-2 December 2009, Perlis, Malaysia.
- 75) Sivaruby Kanagaratanam, Miskandar Mat Sahri, **M. Enamul Hoque**, Andrew Spowage. Reducing *trans* and saturated fatty acids in roll-in fats using palm oil fractions. International Palm Oil Congress 2009, 9 - 12 November 2009, Kuala Lumpur, Malaysia.
- 76) Sivaruby Kanagaratanam, Sylvia Yui Swee Lian, Miskandar Mat Sahri, **M. Enamul Hoque**, Andrew Spowage. Determination of stability and structural deformation of palm oil based shortening. International Palm Oil Congress 2009, 9 - 12 November 2009, Kuala Lumpur, Malaysia.
- 77) Sivaruby Kanagaratnam, Miskandar Mat Sahri, **M. Enamul Hoque**, Andrew Spowage. Optimizing Processing Technique in Margarine Production. 7th Euro Fed Lipid Congress 2009, 18 - 21 October 2009, Graz, Austria.
- 78) **M. Enamul Hoque**, D. Wijewardena, S. Mei Tan, S. M. Fadhlán, Angela Ng, Ruszymah Idrus. Design of an Incubator-Suited Bioreactor for Dynamic Tissue Culture – A Prototype. 2nd Tissue Engineering and Regenerative Medicine International Society (TERMIS) World Congress. 31 August – 3 September, 2009. Seoul, Korea.
- 79) **M. Enamul Hoque**, L. Pui Gee. Production of Biodiesel from Plant Resources. The 3rd Regional Conference on Natural Resources in the Tropics (Nrtrop3). 3 – 5 August 2009, Sarawak, Malaysia.
- 80) **M. Enamul Hoque**. Biotechnological Extraction of Heavy Metals from Secondary Sources. Materials, Minerals and Mining Conference (M3C 2009), 7 April 2009, Kuala Lumpur, Malaysia.

- 81) **M. Enamul Hoque**, J. Philip OBBARD. Eco-friendly recovery of heavy metals from alternative sources using microorganisms - A review. International Conference on Environment 2008 (ICENV 2008), 15-17 December 2008, Penang, Malaysia.
- 82) W.S. Wan Abdullah, M.Y. Yusof, A.N. Ahmad Puad, **M. E. Hoque**. Potential Application of Laser Shearography for Analysis of Corrosion in Petroleum Pipeline. International Conference on Experimental Mechanics 2008 (ICEM 2008), 8-11 November 2008, Nanjing, China.
- 83) **M. Enamul Hoque**, L Weng Lum. A computational model to predict the effects of design parameters on porous and mechanical characteristics of 3d scaffolds. 2008 Annual Conference of Tissue Engineering and Regenerative Medicine International Society - Asian Pacific Region (2008 TERMIS-AP), November 6-8, 2008, Taipei, Taiwan.
- 84) **M. Enamul Hoque**. Strategic study on 3D scaffolds – From fabrication to in vitro experimentations. 6th Marie Curie Cutting-Edge Conference on “Stem Cells: From the Petri dish to the clinical application”, 27 - 31st October 2008, Algarve, Portugal.
- 85) **Hoque, M. E.**, Zainal, N. H., Syarif J. Investigation on mechanical properties of contemporary metallic bone plates – Towards the development of composite bone plates. 2nd Malaysian Tissue Engineering & Regenerative Medicine Scientific Meeting (2nd MTERMS 08), 22-23 July 2008, Kuala Lumpur, Malaysia.
- 86) **M. Enamul Hoque**, W. Feng, Y.S. Wong, D.W. Hutmacher, S. Li, M-H Huang, M.Vert. In vitro physical and mechano-chemical properties of biodegradable scaffolds fabricated with PCL and PCL-PEG. The 4th Kuala Lumpur International Conference on Biomedical Engineering (Biomed 2008), 25 - 28 June 2008, Kuala Lumpur, Malaysia.
- 87) **M. Enamul Hoque**, W. Feng, Y.S. Wong, D.W. Hutmacher, S. Li, M-H Huang, M.Vert, P.J. Bártolo. Scaffolds Designed and Fabricated with Elastic Biomaterials Applying CAD-CAM Technique. Tissue Engineering and Regenerative Medicine International Society – Europe Annual Meeting 2008 (TERMIS-EU 2008), 22 - 26 June 2008, Portugal.
- 88) **Hoque M. E.**, Wong Y. S., Li S., Huang M. H., Vert M., Hutmacher D. W. Structural anisotropy and viscoelastic properties of scaffolds fabricated with PCL and PCL-PEG. Tissue Engineering and Regenerative Medicine International Society – Asia Pacific (TERMIS-AP 2007) Annual Meeting, 3 - 5 December 2007, Tokyo, Japan.
- 89) **M. Enamul Hoque**, Wong Y.S., Feng Wei, Li Suming, Huang Ming-Hsi, M. Vert. Hutmacher, D. W. Accelerated Degradation of 3-D Scaffolds Fabricated with Various Architectures Using Various Biopolymers via Rapid Prototyping Technology. 5th World Congress of Biomechanics, 29 July – 4 August 2006, Munich, Germany.
- 90) **M. Enamul Hoque**, D.W. Hutmacher, W. Feng, S. Li, M-H Huang, M.Vert, Y.S. Wong. Cell Behavior in Highly Reproducible and Fully Interconnected PCL-PEG-PCL Scaffolds. Regenerate World Congress on Tissue Engineering and Regenerative Medicine, 25 – 27 April 2006, Pittsburgh, Pennsylvania, USA.

- 91) **M. Enamul Hoque**, Hutmacher Dietmar W, Feng Wei, S. Li, M-H Huang, M.Vert, Wong Y S. Influence of process parameters on the properties of scaffolds developed by robot-based rapid prototyping (RP) technique. The 2nd Materials Research Society of Singapore (MRS-S) Conference on Advanced Materials, 18 – 20 January 2006, Singapore.
- 92) **M. Enamul Hoque**, Hutmacher Dietmar W, Feng Wei, S. Li, M-H Huang, M.Vert, Wong Y S. Desktop Robotic System to Process Synthetic Biopolymers into 3-D Scaffolds. The 3rd International Conference on Computational Intelligence, Robotics and Autonomous Systems (CIRAS 2005), 13 - 16 December 2005, Singapore.
- 93) **M. Enamul Hoque**, Hutmacher Dietmar W, Feng Wei, S. Li, M-H Huang, M.Vert, Wong Y S. Characterization of Scaffolds – Evaluation of the Effect of Material, Scaffold Architecture and Test Environment on Mechanical Properties. The 8th Annual Meeting of the Tissue Engineering Society International (TESI), 22-25 October 2005, Shanghai, China.
- 94) **M. Enamul Hoque**, Feng Wei, Wong YS, Hutmacher Dietmar W. Study on Structural Anisotropy of Scaffolds Developed by Solid Free Form Fabrication Technique. Regenerate 2005, 1-3 June 2005, Atlanta, Georgia, USA.
- 95) **Hoque Md Enamul**, Feng Wei, Li Suming, Huang Ming-his, Wong Y S, Hutmacher D W. Scaffold Fabrication Using a Rapid Prototyping Technique Based on Desktop-Robot-Controlled Melt Extrusion. Regenerate 2004, 9-12 June 2004, Washington, USA.
- 96) **M. Enamul Hoque**, W. Feng, L. Geng, Y.S. Wong, D.W. Hutmacher. 3d Polymeric Tissue Engineering Scaffolds Fabricated by a Robotic System. The 6th Asia Pacific Chitin-Chitosan Symposium (6APCCS), 23 - 26 May 2004, National University of Singapore, Singapore.
- 97) **M. Enamul Hoque**, Hai-Quan Mao, S. Ramakrishna. Synthetic Polymeric Scaffold for Bioartificial Liver Assist Device. The 2nd International Conference on Structure, Processing and Properties of Materials, SPPM 2004, 25-27 February 2004, Dhaka, Bangladesh.
- 98) **M. Enamul Hoque**, Y. S. Wong and D. W. Hutmacher. Computer Controlled Melt Extrusion Technique for Fabricating Thermoplastic Polymeric Scaffold for Tissue Engineering Applications. International Conference on Materials for Advanced Technologies (ICMAT 2003), 7 – 12 December 2003, Singapore.
- 99) **M. E. Hoque**, P. C. Zhang, H. F. Lu, C. Yin, H. Q. Mao and S. Ramakrishna. Development of a Hybrid Fibrous Scaffold for Bioartificial Liver Assist Device. International Conference on Materials for Advanced Technologies (ICMAT) 2003, 7 – 12 December 2003, Singapore.
- 100) **M. Enamul Hoque**, Hai-Quan Mao and S. Ramakrishna. Development of Scaffold for Liver Tissue Engineering. International Conference on Manufacturing ICM 2002, 09 – 11 August 2002, Dhaka, Bangladesh.