

CURRICULUM VITAE



PERSONAL INFORMATON	Full Name: Dr. Md. Abdul Hakim Khan			
	Current Position: Professor (Date of appointment:03.02.2007)			
	Date of Birth: 1st January 1965			
	Address: Professor, Department of Mathematics, BUET, Dhaka-1000			
	Phone Numbers: +880 1552373796			
	Facsimile: +880258613046, +88029665622			
	E-Mail Address: mahkhan@math.buet.ac.bd mahakimkhan@gmail.com			
	Home Page: http://www.buet.ac.bd/mahkhan			
EDUCATION	Degree	Year	Graduating Institution	Major/Minor
	Ph.D.	2001	University of Bristol, Bristol, UK	Approximant Methods & Instability on Fluids
	M.Phil.	1998	Department of Mathematics, BUET	Mathematics
	M.Sc. (Thesis)	1987 (held in 1991)	University of Dhaka	Applied Mathematics
	B.Sc. (Hons)	1986 (held in 1988)	University of Dhaka	Mathematics
Present Employer	Registrar Email: regtr@regtr.buet.ac.bd Contact: +880-2-9672575 (Office); PABX: +880-2-55167100 (Ext: 7141(off), 7136(res)) Cell: +88 01819482136			Bangladesh University of Engineering & Technology Dhaka-1000. BANGLADESH.

EMPLOYMENT RECORD	Designation with Institution	Period
	Professor, BUET	Feb. 03,2007 to date
	Associate Professor, BUET	Jan. 24,2004 to Feb. 03, 2007
	Assistant Professor, BUET	July 10, 1996 to Jan. 24, 2004
	Lecturer, BUET	Feb. 15, 1992 to July 10, 1996
AWARDS	<ul style="list-style-type: none"> • Recipient of Commonwealth Academic Staff Scholarship, 1998. (University of Bristol, UK) • 1986-1987: DU Merit Scholarship 	
Academic Contributions	<p><u>Academic/Research</u></p> <p>Teaching activities undertaken (course and laboratory) at undergraduate and graduate levels: (Title of the Course Taught)</p> <p><i>Differential Calculus, Integral Calculus, Vector Analysis, Series Solution, Algebra, Geometry, Numerical Analysis, Differential Equations, Matrices, Linear Algebra, Fluid Dynamics, Advance Numerical Methods.</i></p> <p>Research interest: <i>Approximant methods, CFD, Stability of the flows, Fluid-Thermal-Acoustic model, Natural ventilation on buildings, Traffic flow dynamics, Bio-fluid Dynamics.</i></p> <p><u>Supervision of Completed Graduate Research Work:</u></p> <p><u>M.Sc.</u></p> <p>(i) Hemodynamic Blood Flow through Human Artery of Composite Geometry Under the Effect of Applied Magnetic Field. (11.12.2018)</p> <p><u>M.Phil.</u></p> <p>(i) Study of Cost Allocation Methods and their Applications. (19.10.2004)</p> <p>(ii) A New Approach To Partial Differential Approximants. (29.12.2004)</p> <p>(iii) Solution Behavior of Flow in a Non-Aligned Straight Rotating Pipe and Across (Cross Flow Over) a Horizontal Cylinder. (09.01.2005)</p> <p>(iv) Dominating singularity behavior of series by using computer based approximation technique. (24.04.2007)</p> <p>(v) Numerical prediction of hydrodynamic performance of modern marine propulsive device in steady flow. (28.03.2009)</p> <p>(vi) Natural Convection Flow of Nanofluid along a Vertical Complex Wavy Surface with Uniform Heat Flux. (29.03.2014)</p> <p>(vii) MHD Effect on Double Diffusive Mixed Convection in a Lid Driven Trapezoidal Enclosure for Unsteady Flow.(10.01.2015)</p> <p>(viii) Study of Fluid Flow Through a Tube With and Without Obstacle. (29.11.2015)</p>	

	<p><u>Ph.D.</u></p> <p>(i) Analytical Investigation for the Solar Heat Driven Cooling and Heating System for the Climatic Condition of Dhaka. (12.07.2014)</p> <p>(ii) Numerical Study on Stability of Magnetohydrodynamic Nanofluid Flow through Channel. (23-01-2016)</p>
<p>Professional Contributions</p>	<p><u>Administrative Positions:</u></p> <p>Activities Assigned by Universities authorities in addition to own duties:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Head, Department of Mathematics,(2009-2011) <input type="checkbox"/> Assistant Provost, Titumir Hall, BUET (2004-2007) <p><u>Mentionable Positions and Leadership</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Member, American Society of Thermal and Fluid Engineers (2018) <input type="checkbox"/> Executive member, Bangladesh Mathematical Society (2018-2019) <input type="checkbox"/> Vice-president, Bangladesh Mathematical Society (2014-2015, 2016-2017) <input type="checkbox"/> Convener, BUET-Taletalk Inter University Mathematics Olympiad Committee, 2009 <input type="checkbox"/> Convener, Dhaka South Regional Undergraduate Mathematics Olympiad Committee, 2015 <input type="checkbox"/> Moderator, National Undergraduate Mathematics Olympiad Committee, 2016-2017, 2017-2018. <input type="checkbox"/> Selection Board Member <ul style="list-style-type: none"> * Jahangirnagar University * Dhaka University of Engineering & Technology * Pabna University of Science & Technology <input type="checkbox"/> Vice Chairman- Managing Committee, BUET Girls School. 2008-2010. <p>a) Served as an M. Phil. thesis Examiner of the following students:</p> <ul style="list-style-type: none"> • Dr. Mohammad Abu Taher. Thesis Title "Magnetohydrodynamic natural convection flow on a sphere". • Dr. Zafar Iqbal Khan. Thesis Title "Conjugate effect of conduction and convection with natural convection flow of a vertical flat plate and in a square cavity". <p>b) Member of a Ph.D. Doctoral Committee:</p> <ul style="list-style-type: none"> * <i>Dr. Md. Mahmud Alam</i>, Department of mathematics at BUET. * <i>Dr. Nazma Parveen</i>, Department of mathematics at BUET.

	<p>* Mr. Jahirul Haq Munshi, Department of mathematics at BUET.</p> <p>* Mr. <i>Mohammad Ali</i>, Department of mathematics at BUET.</p> <p>* Mrs. Sharaban Tahura, Department of mathematics at BUET.</p> <p>Md. Anwar Hossain, Department of mathematics at BUET</p> <p>Md. Abul Kalam Azad, Department of mathematics at BUET</p> <p>c) Serving as an external examiner/ expert member:</p> <p>* Dhaka University</p> <p>* Jahangirnagar University</p> <p>* Jagannath University</p> <p>* Dhaka University of Engineering & Technology</p> <p>* Pabna University of Science & Technology</p> <p>* Military Institute of Science and Technology etc.</p> <p>d) Regular examiner: BUET Admission Test since 15-02-1992 .</p> <p>e) Perform the duty of Assistant Election Commissioner in BUET Teachers Association Election 2005 with sincerity and dignity.</p> <p>f) Member, Examination Committee, Department of Mathematics, BUET since 2004.</p> <p>g) Member, Academic Council, BUET since December 2004.</p> <p>h) Member, Faculty of Engineering, BUET since 10-07-1996.</p> <p>i) Member of Board of Undergraduate Studies (BUGS) since 1992 and Board of Postgraduate Studies (BPGS) since 2002, Department of Mathematics, BUET.</p> <p>i. Part time faculty at North South University (NSU) since 2002 (Calculus, Business Mathematics, Linear Algebra etc).</p> <p>ii. Part time faculty at Islamic University of Technology (IUT) (Calculus, Statistics & Engineering Mathematics).</p>
--	--

Publications for the recent 15 years	<p>List of publications:</p> <p><u>(i) Journal publication (recognized and refereed journals/proceedings):</u></p> <p>(2000-2010)</p> <ol style="list-style-type: none"> 1. Khan M A H, (2002) High-order differential approximants, Journal of Computational and Applied Mathematics, v. 149, pp. 457-468. 2. Khan M A H, Chowdhury M K (2002) Approximate method to flow in a rotating straight pipe, J. Mech. Engg. v. ME 31, pp. 81-89. 3. Khan M A H, Tourigny Y, Drazin P G (2003) A case study of methods of series summation: Kelvin-Helmholtz instability of finite amplitude, Journal of Computational Physics, v. 187, pp. 212-229.
---	---

4. **Khan M A H**, Tourigny Y, Drazin P G (2003) The summation of series in several variables and its applications in fluid dynamics, *Fluid Dynamics Research*, v. 33, i.1-2, pp. 191-205.
 5. Rahman M M, **Khan M A H** (2004) A New Approach to Partial Differential approximants, *GANIT: Journal of Bangladesh Mathematical Society*, (ISSN: 1606-3694) v.24, pp. 55-65.
 6. Tourigny Y, **Khan M A H** (2005) Continued Fractions and the Problem of Summing Power Series, *Proceedings: International Conference on Applied Mathematics & Mathematical Physics*, January 4-7, pp.109-119, Department of Mathematics, Shahjalal University of Science & Technology, Sylhet 3114, Bangladesh.
 7. **Khan M A H** (2006) Singularity Behavior of Flow in a Curved Pipe, *Journal of Applied Mechanics & Engineering*, v.11, No.3, pp. 699-704.
 8. Rahman M M, Hye M A, **Khan M A H** (2006), Approximant Methods and Singularity Analysis of Power Series, *GANIT: Journal of Bangladesh Mathematical Society* (ISSN: 1606-3694), v.24, pp. 55-65.
 9. M.M Karim, **M.A.H Khan** and M.K Hasan (2006) A Study of Surface Panel Method for the Analysis of Marine Propellers in Steady Flow". *J. Mech. Engg.* v. ME35, page 42-54, june 2006.
 10. Md. A. Hye, Md.M. Molla, **M.A.H. Khan.** (2007) Conjugate Effects of Heat and Mass Transfer on Natural Convection Flow Across an Isothermal Horizontal Circular Cylinder with Chemical Reaction, *LANA, Nonlinear Analysis: Modelling and Control*: (ISSN: 1392-5113), v.12, no. 2, pp. 191–201.
 11. Md.A. Hye, **M.A.H. Khan.** (2007) Dominating Singularity of the flow in a Non-aligned Straight Rotating Pipe, *International Journal of Fluid Dynamics Research*, v. 34, i.6, pp. 562-571.
 12. R. A. Rouf and **M. A. H. Khan** (2008) Dominating Singularity Behavior of the Flow in a Porous Pipe with Decelerating Wall, *Proceedings of 4th BSME – ASME International Conference on Thermal Engineering*, 27-29 December, 2008, Dhaka, Bangladesh. v. 1, pp-236-241.
 13. M. S. Alam, **M.A.H. Khan**, “Critical Behaviour of the MHD flow in Convergent-Divergent Channels”, *Journal of Naval Architecture and Marine Engineering*, Vol. 7, No. 2, pp. 83-93, ISSN 1813-8535 (Print) 2070-8998 (Online), (2010).
- (2011)**
14. M. K. Hasan, M. M. Karim and **M. A. H. Khan** (2011) Effects of Hub Taper Angle and Pod-Strut Geometry on Hydrodynamic Characteristics of Podded Propulsors. *Journal of Ship Technology*, Vol.-7 No. 2 pp. 63-74.
 15. M. S. I. Mallik, M. S. Hossain, and **M. A. H. Khan** (2011) Internal Flow Separation due to Hydromagnetic Effects in a linearly Diverging Channel having Permeable Walls. *Canadian Journal on computing in*

Mathematics, Natural Sciences, Engineering and Medicine. Vol.2 No. 7. pp-181-186.

16. M. S. I. Mallik and **M.A.H.Khan** (2011) Internal Flow Separation due to Hydro magnetic Effects in a slowly varying Exponentially Diverging Channel with slip at the Permeable boundaries Walls. Science Journal of Mathematics & Statistics. ISSN: 2276-6324. Vol. 2 Issue 1. pp 1-5.

(2012)

17. Rouf R. A., Alam M. S. and **Khan M. A. H.**, "Approximation Approach to Multiple Singularity of Flow Through a Porous Pipe with Decelerating Wall" Journal of Naval Architecture and Marine Engineering, v. 9, issue 1, pp. 25-34, 2012.

(2013)

18. Md. S. Alam, M. A. Alim, **M.A.H. Khan**, R. N. Mondal "Critical analysis of the influence of Thermal Radiation on variable viscosity flow through a Channel", *International Journal of Energy & Technology*, Vol. 5, No.11, pp. 1-7, ISSN: 2035-911X, (2013).

19. Md. S. Alam, **M.A.H. Khan**, M. M. Rahman "Critical analysis of the influence of magnetic Reynolds number on MHD Jeffery-Hamel flows", *International Journal of Applied Mathematics and Mechanics*, Vol. 9, No. 5, pp. 31-46, ISSN: 0973-0184, (2013).

20. Rouf, R., Alam, K., **Khan, M.**, Ashrafee, T., Anwer, M. "Solar Adsorption Cooling: A Case Study on the Climatic Condition of Dhaka". Journal of Computers, North America, v. 8, may. 2013. Available at: <http://ojs.academypublisher.com/index.php/jcp/article/view/jcp080511011108>.

21. Rouf R. A, Alam K. C. A, **Khan M. A. H**, "Effect of Operating Conditions on the Performance of Adsorption Solar Cooling run by Solar Collectors", *Procedia Engineering*, v. 56, pp. 607-612, 2013.

22. R. A. Rouf, K. C. A. Alam, **M. A. H. Khan**, K. M. A. Kabir, "Significance of heat storage in the performance of solar adsorption cooling system", *Proceedings of 18th International Mathematics Conference 2013*, pp. 210-212, 2013.

23. Alam K. C. A., Rouf R. A., Saha B. B., **Khan M. A. H.**, Meunier F., "Adsorption Solar Cooling – Driven by Heat Storage Collected from CPC panel" *Proceedings of International Symposium on Innovative Materials for Processes in Renewable Energy Systems 2013 (IMPRES2013)*, pp. 397-402, 2013.

(2014)

24. Md. S. Alam, **M.A. H. Khan**, "Hermite- Padé projection to thermal radiative and variable conductivity MHD flows through channel with a sliding wall". *International Journal of Engineering, Science and Technology*, Vol. 6(1), pp. 88-97, ISSN: 2141-2839 (Online); ISSN: 2141-2820 (Print), (2014).

25. Md. S. Alam, **M.A. H. Khan**, "MHD effects on Mixed Convection flow through a diverging channel with circular obstacle", *Procedia Engineering* (Elsevier), Vol. 90, (2014), pp. 403-410.
26. Md. S. Alam, **M.A.H. Khan**, M.A. Alim, "Critical Analysis of Magnetohydro dynamic Jeffery-Hamel flow using Cu-water nanofluid", *GANIT: Journal of Bangladesh Mathematical Society*, Vol. 34, (2014).
27. Md. S. Alam, **M.A.H. Khan**, "MHD effects on Mixed Convection flow through a diverging channel with circular obstacle", *Procedia Engineering* (Elsevier), Vol. 90, pp. 403-410, (2014).
28. Md. S. Alam, **M.A.H. Khan**, "Hermite- Padé projection to thermal radiative and variable conductivity MHD flows through channel with a sliding wall", *International Journal of Engineering, Science and Technology*, Vol. 6, No. 1, pp. 88-97, ISSN: 2141-2839 (Online); ISSN: 2141-2820 (Print), (2014).
29. Md. S. Alam, **M.A.H. Khan**, M.A. Alim, "Critical Analysis of Magnetohydrodynamic Jeffery-Hamel flow using Cu-water nanofluid", *GANIT: Journal of Bangladesh Mathematical Society*, Vol. 34, pp. 111-126, ISSN: 2224-5111 (Online), 1606-3694 (Print), (2014).
30. Rouf R. A, Alam K. C. A, **Khan M. A. H**, Saha B. B., Meunier F., Alim M. A., Kabir K. M. A., "Advancement of solar adsorption cooling by means of heat storage", *Procedia Engineering*, v. 90, pp. 649-656, 2014.
31. R. A. Rouf, K. C. A. Alam, **M. A. H. Khan**, "Solar adsorption cooling and hot water supply for climatic condition of Dhaka", *Proceedings of 6th BSME International Conference (ICTE) 2014*, pp.
32. Md. S. Alam, **M.A.H.Khan**, M.A. Alim, "Radiative Heat transfer and Entropy-generation analysis for variable thermal conductivity MHD flow through channel with nanofluid", *Journal of Applied Fluid Mechanics*, (2014), (Submitted).
33. Rouf R. A, Alam K. C. A, **Khan M. A. H**, Saha B. B., Meunier F., Alim M. A., Kabir K. M. A., "Advancement of solar adsorption cooling by means of heat storage", *Procedia Engineering*, v. 90, pp. 649-656, 2014.

(2015)

34. Md. S. Alam, **M.A.H. Khan**, "Analysis of Magnetohydrodynamic Jeffery-Hamel flow with nanoparticle by Hermite- Padé approximation technique", *International Journal of Engineering*, Vol. 28, No. 4, pp. 599-607, ISSN: 1025-2495. e-ISSN: 1735-9244, (2015). Impact Factor 2013 (1.0986)
35. M. Borhan Uddin, M.M. Rahman, **M.A.H. Khan**, Talaat A. Ibrahim (2015) Effect of buoyancy ratio on unsteady thermosolutal combined convection in a lid driven trapezoidal enclosure in the presence of magnetic field, *Computers & Fluids* 114, 284–296.
36. M. Borhan Uddin, M. M. Rahman, **M.A.H.Khan** (2015) "Hydromagnetic Double-Diffusive Unsteady Mixed Convection in a Trapezoidal Enclosure Due to Uniform and Nonuniform Heating at the Bottom Side", *Int. J. Numerical Heat Transfer, Part A*, 68: 205–224.

37. R. Chowdhury, **M. A. H. Khan**, M. N. A. A Siddiki (2015) Natural Convection in Porous Triangular Enclosure with a Circular Obstacle in Presence of Heat Generation, *American Journal of Applied Mathematics*, 3(2): 51-58
38. M. S. Alam, **M.A.H.Khan** (2015) Analysis of MHD Jeffery-Hamel Flow with Nanoparticles by Hermite-Pade Approximation, *International Journal of Engineering*, IJE TRANSACTIONS A: Basics Vol. 28, No. 4, pp. 599-607.
39. RifatAraRouf, K. C. AmanulAlam, M. A. Hakim Khan, "Solar adsorption cooling and hot water supply for climatic condition of Dhaka", *Procedia Engineering* v. 105 (2015), pp. 705-712, doi: 10.1016/j.proeng.2015.05.060. June 15, 2015.
40. R. A. Rouf, K. C. A. Alam, **M. A. H. Khan**, "Analytical Investigation for Design of a Solar Heat Driven Adsorption Chiller", 19th International Mathematics Conference, Dhaka (December 2015).
41. K. C. AmanulAlam, RifatAraRouf, BidyutBaranSaha, **M. Abdul Hakim Khan**&Francis Meunier,"Autonomous Adsorption Cooling – Driven by Heat Storage Collected from Solar Heat", *Heat Transfer Engineering*, DOI:10.1080/01457632.2015.1067045, online: 16 Nov 2015.<http://dx.doi.org/10.1080/01457632.2015.1067045>
42. Raju Chowdhury, Salma Parvin, **Md. Abdul Hakim Khan**, Ali J. Chamkha, "Effect of magnetic field and heat generation on free convection in a porous media filled equilateral triangular cavity", *International Journal of Energy & Technology*, Vol. 7, Issue. 1, 2015, pp. 49-61.(Click to see the paper). Online Publication Date: June 04, 2015.
43. Raju Chowdhury,**Md. Abdul Hakim Khan**, Md. Noor-A-AlamSiddiki, "Natural convection in porous triangular enclosure with a circular obstacle in presence of heat generation",*American Journal of Applied Mathematics*, Vol. 3, No. 2, 2015, pp. 51-58. (doi: 10.11648/j.ajam.20150302.14). Online Publication Date: March 21, 2015.

(2016)

44. Md. S. Alam, M.A. Alim, **M.A.H. Khan**, "Entropy Generation Analysis for Variable Thermal Conductivity MHD Radiative Nanofluid Flow through Channel", *Journal of Applied Fluid Mechanics*, Vol. 9, No. 3, pp.1123-1134, (2016). Impact Factor 2014 (0.746)
45. Md. S. Alam,**M.A.H. Khan**, M.A. Alim, "Irreversibility analysis of variable thermal conductivity MHD radiative flow in porous channel with different nanoparticles", *Journal of Porous Media*, Begell House Inc., USA, Vol. 19 (2016). (Accepted) Impact Factor (0.807)
46. Md. S. Alam, M.A. Alim, M.A.H. Khan, "Entropy Generation Analysis for Variable Thermal Conductivity MHD Radiative Nanofluid Flow through Channel", *Journal of Applied Fluid Mechanics*, Vol. 9, No. 3, pp.1123-1134, (2016). Impact Factor 2014 (0.746)
47. Md. S. Alam, **M.A.H. Khan**, M.A. Alim, "Magnetohydrodynamic Stability of Jeffery-Hamel Flow using Different Nanoparticles", *Journal*

of Applied Fluid Mechanics, Vol. 9, No. 2, pp. 899-908, (2016). Impact Factor 2014 (0.746)

48. Md. S. Alam, **M.A.H. Khan**, M.A. Alim, "Entropy generation for MHD Radiative Variable Thermal Conductivity Nanofluid Flow through Porous Channel", *Thammasat International Journal of Science and Technology*, Vol. 21, No. 1, pp. 71-86, (2016).
49. Md. S. Alam, **M.A.H. Khan**, "MHD Combined Convection Heat Transfer in a Diverging Channel with Heated Circular Obstacle", *American Institute of Physics, (AIP)*, (Accepted). (2016)
50. Rifat A. Rouf, K. C. Amanul Alam, **M. A. Hakim Khan**, Bidyut Baran Saha and Ibrahim I. El-Sharkawy, "Performance Analysis of Solar Adsorption Cooling System - Effect of Position of Heat Storage Tank", *Applications and Applied Mathematics*, <http://pvamu.edu/aam>. May 2016.
51. Raju Chowdhury, **Md. Abdul Hakim Khan**, Sayeda Fahmida Ferdousi, "Effect of Thin Fin on Natural Convective Heat Transfer in a Parallelogram Shaped Cavity", *International Journal of Mechanical Engineering and Automation*, Vol. 3, No. 1, pp. 34-39. Online Publication Date January 25, 2016.
52. **Raju Chowdhury**, Salma Parvin, **Md. Abdul Hakim Khan**, Ali J. Chamkha, "MHD Natural Convection in a Porous Equilateral Triangular Enclosure with a Heated Square Body in the Presence of Heat Generation", *Special Topics & Reviews in Porous Media: An International Journal*, Vol. 6, Issue. 4, pp. 353-365. (doi:10.1615/SpecialTopicsRevPorousMedia.v6.i4.40). 2016.
53. **Raju Chowdhury**, Salma Parvin, Md. Abdul Hakim Khan, "Finite element analysis of double-diffusive natural convection in a porous triangular enclosure filled with Al_2O_3 -water nanofluid in presence of heat generation", *Heliyon*, 2 (2016) e00140. (DOI: [10.1016/j.heliyon.2016.e00140](https://doi.org/10.1016/j.heliyon.2016.e00140)). **Online Publication Date:** August 16, 2016.
54. **Raju Chowdhury**, Md. Abdul Hakim Khan, Sayeda Fahmida Ferdousi, "Effect of Thin Fin on Natural Convective Heat Transfer in a Parallelogram Shaped Cavity", *International Journal of Mechanical Engineering and Automation*, Vol. 3, No. 1, pp. 34-39. **Online Publication Date:** January 25, 2016.

(2017)

55. Md. S. Alam, **M.A.H. Khan**, "Instability of variable thermal conductivity magnetohydrodynamic nanofluid flow in a vertical porous channel of varying width" has been accepted in the journal **Defect and Diffusion in 2017 Scopus CiteScore (0.20)**.
56. Md. S. Alam, **M. A. H. Khan**, O. D. Makinde, "Magneto-Nanofluid Dynamics in Convergent-Divergent Channel and Its Inherent Irreversibility" has been accepted in the journal **New Development for Heat Transfer in Solids and Fluid Flow**; <https://www.scientific.net>

(2019)

57. Abdul Karim, Samia Taher, Mohammed Nizam Uddin and **M. A. H. Khan**. Computational analysis of blood flow through the human artery with axi-symmetric blockage. *Computational and Applied Mathematical Sciences*, 4(1), 2019.

(ii) Conference Papers:

1. Abdul Karim, Motahar Hossain, Salma Parvin and **M. A. H. Khan**. 8th BSME International Conference on Thermal Engineering. Paper: Hemodynamic Blood Flow through a Section of Human Artery under the Effect of Applied Magnetic Field. Dec 2018.
2. **Invited Speaker to International Conference on Emerging Trends of Computational Fluid Dynamics (ICETCFD-2019) at Christ University, Bangalore, India. 4-5 March 2019.**

Presentations (Book of Abstract):

1. **M. A. H. Khan, S. Parvin, A. Sultana** "A Numerical Study on Acoustic Streaming and Tissue Heating during Magnetic Resonance guided High Intensity Focused Ultrasound through Blood Vessel with an Obstacle", [*3rd Thermal and Fluids Engineering Conference \(TFEC\)*](#), March 4–7, 2018 Fort Lauderdale, FL, USA (Paper Id : TFEC-2018-21810, ASTFE proceedings: PP-129-141)
2. **RajuChowdhury, Salma Parvin, Md. Abdul Hakim Khan**, "Double-diffusive Natural Convection of Cu-Water Nanofluid in a Window Shaped Cavity Containing Multiple Obstacles with a Heater on Bottom Wall", [*7th BSME International Conference on Thermal Engineering \(ICTE 2016\)*](#), 22-24 December, 2016, BUET, Dhaka, Bangladesh. (**Paper ID: BSME-ICTE 2016-PI-61**)
3. **RajuChowdhury, Salma Parvin, Md. Abdul Hakim Khan**, "Numerical study on double-diffusive natural convection in a window shaped cavity containing multiple obstacles filled with nanofluid", [*10th International Conference on Marine Technology \(MARTEC 2016\)*](#), 9-10 December, 2016, BUET, Dhaka, Bangladesh. (**Paper ID: MARTEC 16-160**)
4. **RajuChowdhury, Salma Parvin, Md. Abdul Hakim Khan**, "Natural convective heat and mass transfer in a porous triangular enclosure filled with nanofluid in presence of heat generation", [*11th International Conference on Mechanical Engineering, ICME 2015*](#), 18–20 December, 2015, BUET, Dhaka, Bangladesh. (Paper ID: ICME2015-074)
5. **RajuChowdhury, Salma Parvin, Md. Abdul Hakim Khan**, "Numerical simulation of double-diffusive natural convection in a triangular enclosure filled with nanofluid saturated porous medium with magnetic field", [*19th International Mathematics Conference*](#), 18–20 December, 2015, BRAC University, Dhaka, Bangladesh. (Paper ID: IMC2015-4325)

6. RajuChowdhury, Salma Parvin, **Md. Abdul Hakim Khan**, “Double diffusive natural convection in a porous wavy triangular enclosure filled with nanofluid in presence of magnetic field”, *International Conference on Mechanical, Industrial and Materials Engineering 2015 (ICMIME 2015)*, 11–13 December, 2015, RUET, Rajshahi, Bangladesh. (Paper ID: ICMIME2015-TE-10)
7. RajuChowdhury, Salma Parvin, **Md. Abdul Hakim Khan**, “Heat generation effect on natural convection flow in a rhombic shape cavity containing a rectangular block”, *The 3rd International Conference on Mechanical Engineering and Renewable Energy (ICMERE-2015)*, 26 – 29 November, 2015, Chittagong, Bangladesh. (Paper ID: ICMERE2015-PI-029)
8. Salma Parvin, RajuChowdhury, **Md. Abdul Hakim Khan**, Md. Abdul Alim, “Performance of Nanofluid in free convective heat transfer inside a cavity with non-isothermal boundary conditions”, *The 3rd International Conference on Mechanical Engineering and Renewable Energy (ICMERE-2015)*, 26 – 29 November, 2015, Chittagong, Bangladesh. (Paper ID: ICMERE2015-PI-058)
9. RajuChowdhury, Salma Parvin, **Md. Abdul Hakim Khan**, “MHD effect on free convection flow in porous media filled equilateral triangular cavity with heat generation”, *6th BSME International Conference on Thermal Engineering (ICTE 2014)*, 19-21 December, 2014, IUT, Dhaka, Bangladesh. (Paper ID: BSME-ICTE 2014-PI-223) (Conference Poster)
10. Rouf R. A., Alam K. C. A., **Khan M. A. H.**, Ashrafee T. and Khan A. F. M. K., “Mathematical Analysis of Adsorption Solar Cooling in the perspective of Dhaka Climatic Conditions”, *17th Mathematics Conference of Bangladesh Mathematical society, 2011*.
11. Rouf R. A., Alam K. C. A., **Khan M. A. H.**, Ashrafee T., “Prospect of solar cooling based on the climatic condition of Dhaka”. *Proceedings of 9th International Conference on Mechanical Engineering 2011: ICME11-RE-014*.
12. K. C. A. Alam, R. A. Rouf and M. A. H. Khan, “Solar Adsorption Cooling based on solar data of Dhaka: Part II- Effect of Cycle Time”, *16th Mathematics Conference, Dhaka* (December 2009).
13. K. C. A. Alam, R. A. Rouf and M. A. H. Khan, “Solar Adsorption Cooling based on solar data of Dhaka: Part I- Effect of Collector size”, *16th Mathematics Conference, Dhaka* (December 2009).
14. RifatAraRouf and Md. Abdul Hakim Khan, “Numerical Study of Dominating Singularity Behavior of Series”, *15th Mathematics conference, Dhaka* (December 2007).
15. Participated in the 4th International Conference on Applied Mathematics & Mathematical Physics, January 4-7, 2005, Department of Mathematics, Shahjalal University of Science and Technology, Sylhet 3114, Bangladesh (with three papers).
16. Informal talk based on the paper “Analytic structure of vortex sheet dynamics. part-I. Kelvin-Helmholtz instability” By *D.I. Meiron, G.R. Baker & S.A. Orszag, J. Fluid Mech. 114, 1982* to the Journal Club, Department of mathematics, University of Bristol, U.K. 17th may, 1999.

17. P. G. Drazin, Y. Tourigny, and **A. H. Khan**: “Summation of Formal Power Series”, The 1999 British Applied Mathematics Colloquium incorporating the 41st BAMC at the University of Bath, 12th – 15th April, 1999.
18. **Seminar talk** based on “Singularity formation in the vortex sheet and summing power series” to the Department of Mathematics, University of Bristol, U.K. 2nd may, 2000.
19. **M. A. Hakim Khan**: “A New Differential Approximant for Summation Series”, British Applied Mathematics Colloquium 2001, The University of Reading, April 2nd – 5th, 2001.
20. *Algorithms for Approximation IV*, International Symposium at University of Huddersfield, UK, July 16-20, 2001. (*Conference Attended*).
21. **M. A. H. Khan**: “Application of Approximate method of flow in a rotating straight pipe”, ICAMMP 2002, International Conference on Applied Mathematics and Mathematical Physics, 06-09 January, 2003.
22. Presented a paper “*Approximate method to flow in a rotating straight pipe*” to the Fourteenth Mathematics Conference, Bangladesh Mathematical Society, Department of Mathematics, University of Dhaka, 27-29 December 2003.
23. Presented a paper “*Singularity behavior of flow in a curved pipe*” to the 2nd BSME- ASME International Conference on Thermal Engineering, 2-4 January 2004, Dhaka, Bangladesh.
24. Presented a paper “Critical Behavior of the Hydromagnetic Flows in Convergent-Divergent Channel, Proceedings of 4th BSME - ASME International Conference on Thermal Engineering, 27-29 December, 2008, Dhaka, Bangladesh.
25. Attended to the workshop on “The Stress Management Workshop” at Staff Development, Senate House, University of Bristol.
26. Attended to the "Workshop on Writing for Publication, Managing Your Ph.D., Planning your Ph.D." organized by the Staff Development, Senate House, University of Bristol.
27. Attended to the "Workshop on programming language C++" held at Institute of Information and Communication Technology (IICT), BUET, Dhaka held from 10-12 April, 2002.
28. Attended to the Workshop “Quality Assurance of Engineering and Technology Education: A step towards Self-Reliance” held at BUET, April 2003.

Contribution other than Teaching and Research:

- i. **Member Editorial Board: GANIT** (Journal of Bangladesh Mathematical Society), 2014-2015, 2016-2017.
- iii. **Reviewer:** (a) **GANIT** (Journal of Bangladesh Mathematical Society)
 (b) "**Afrika Matematika (AFMA)**" <em@editorialmanager.com>; (Elsevier Journal)
 (c) **JNAME** (Journal of Naval Architecture and Marine engineering)
 (d) **JOURNAL OF ADVANCES IN PHYSICS** (ISSN: 2347-3487)

	<p>(e) International Conference for Mechanical Engineers 2017.</p> <p>iv. Involved in preparing/moderating syllabuses for the students of Post/Under Graduate Levels in the Department of Mathematics, BUET.</p> <p>v. Member: Tender Evaluation Committee, Department of Mathematics, BUET</p> <p>vi. Involved in development of computer facility in the Department of Mathematics, BUET for the research of postgraduate students.</p>
--	---

References:

1. **M. Allama Siddiki**
 Ambassador
 Embassy of the Peoples Republic of Bangladesh
 Ankara, Turkey
 E-mail: allama.siddiki@mofa.gov.bd
 Contact No.: +90-312-4952709

2. **Prof. Md. Mustafizur Rahman, PhD**
 Head
 Department of Mathematics
 Bangladesh University of Engineering & Technology
 Dhaka-1000. BANGLADESH.
 Email: headmath@math.buet.ac.bd
m71ramath@gmail.com
 Contact: +880-2-9665603 (Office); PABX: +880-2-55167100 (Ext: 7338)
 Cell: +88 01552556549