

# CURRICULUM VITAE

**Dr. A A Mamun**  
**Professor of Physics**  
**Jahangirnagar University**

## AT A GLANCE



**Dr. A A Mamun** is a **Professor of Physics**, Jahangirnagar University, Savar, Dhaka, Bangladesh. He received his PhD degree in plasma physics from the University of St. Andrews (UK). He has published over 400 research articles in peer-reviewed international journals (most of them are of q1 standard). He has also written a text book on introductory dusty plasma physics, published by the Institute of Physics (London), which is now being used as a textbook of many western universities like UK, Germany, USA, etc. To know the quality of his research work, it should be noted that the total citations of his research work already exceeded **14,500** with h-index **52** and i10-index **251** [to know his updated citation indices along with the title and abstract of his each piece of work, please visit the

link: [http://scholar.google.com/citations?user=uOLQ\\_SkAAAAJ&hl=en](http://scholar.google.com/citations?user=uOLQ_SkAAAAJ&hl=en)].

**Prof. Mamun** was awarded a number of prestigious post-doctoral research fellowships and national/international awards for his outstanding/pioneering contribution in physics. The most important fellowships are Alexander von Humboldt (AvH) Post-Doctoral Research Fellowship (Germany); Commonwealth Post-Doctoral Research Fellowship (UK); Max Planck Research Fellowship (Germany); etc. The most important awards are Bessel Research Award-2009 (Germany); TWAS Young Scientist Prize-2006 (Italy); BAS (Gold Medal) Prize-2004 in Physical Sciences (Junior Group); BAS (Gold Medal) Prize-2011 in Physical Sciences (Senior Group); The Best Young Physicist Prize-2000 (Italy), etc. He gave many plenary and invited talks as well as chaired many scientific sessions in many international conferences held in different parts of the globe.

**Prof. Mamun** holds many administrative/professional positions, viz. Director (in charge) of 'Wazed Miah Science Research Centre', Jahangirnagar University; Elected fellow of the 'Bangladesh Academy of Sciences' as well as 'Bangladesh Physical Society'; elected **President** of 'Jahangirnagar University Teachers Association' for the years of 2012 and 2020 (two times); selected **Vice-President** of 'Bangladesh University Federation'; elected **Senate Member** of Jahangirnagar University 2016-2020; member of the governing body of 'Bangladesh National Scientific and Technical Documentation Centre'; member of the governing body of the "Bangladesh Science and Technology Museum"; guest editor of the "Journal of Plasma Physics" published by the Cambridge University Press, England; **associate editor** of the Journal: 'Review of Modern Plasma Physics' published by Springer Nature (Japan); editorial board member of the journal "Advances in Astrophysics" published by Isaac Scientific Publishing (Korea); member of the jury board for selecting the Best Young Scientist Prize-2011 (meeting held in Garmisch-Partenkirchen, Germany, 2011); Co-chair of the 2<sup>nd</sup> AAPPS-DPP Conference (Kanazawa, Japan); member of the jury board for selecting Chandrasekhar Prize-2018 (meeting was held in Kanazawa, Japan, 12 November 2018).

It may be noted that on the basis of the report of Prof. Ioannidis and his two collaborators (**Stanford University, USA**) published in the journal "PLOS Biology" on 16<sup>th</sup> October 2020, **Prof. Mamun** is one of the **top 2% scientists (position: 130 out of 43,218** who are in top 2% scientists in the world) working in the fields of fluids and plasmas as well as **top 2% scientists (position: 28781 out of 1,59,624** who are in top 2% scientists in the world) working in all branches of sciences including medical and engineering sciences.

## B. Personal Information

1. **Name:** A A Mamun
2. **Nationality:** Bangladeshi
3. **Date of Birth:** 31 December 1966
4. **Place of Birth:** Dhaka, Bangladesh
5. **Position:** Professor of Physics [selection (topmost) grade]
6. **E-mail:** mamun\_phys@juniv.edu
7. **Mailing Address:** Department of Physics, Jahangirnagar University, Savar, Dhaka-1342, Bangladesh
8. **Website:** [http://people.juniv.edu/profile/mamun\\_phys](http://people.juniv.edu/profile/mamun_phys)
9. **Tel. No.:** +880-1829729361

## B. Academic Background

Degree	University	Year	Class (Position)
B. Sc. in Physics	Jahangirnagar University, Dhaka	1986	1 <sup>st</sup> Class (1 <sup>st</sup> Position)
M. Sc. in Physics	Jahangirnagar University, Dhaka	1987	1 <sup>st</sup> Class (1 <sup>st</sup> Position)
Ph. D. in Plasma Physics	St. Andrews University, Scotland	1997	Commonwealth Scholar

## C. Professional Background

### I. National Institutes:

1. **Scientific Officer:** 02 May 1991–04 April 1993: Institute of Nuclear Science & Technology, Bangladesh Atomic Energy Commission, Dhaka, Bangladesh.
2. **Lecturer:** 05 April 1993–18 October 1996: Department of Physics, Jahangirnagar University, Dhaka, Bangladesh.
3. **Assistant Professor:** 19 October 1996–29 May 1998: Department of Physics, Jahangirnagar University, Dhaka, Bangladesh.
4. **Associate Professor:** 30 May 1998–17 April 2004: Department of Physics, Jahangirnagar University, Dhaka, Bangladesh.
5. **Professor:** 18 April 2004–30 June 2018: Department of Physics, Jahangirnagar University, Dhaka, Bangladesh.
6. **Professor [selection (top-most)-grade]:** 01 July 2018 –to date: Department of Physics, Jahangirnagar University, Dhaka, Bangladesh.

### II. International Institutes:

1. **Commonwealth Scholar:** 01 October 1993–30 September 1996: University of St. Andrews, St. Andrews, Scotland, UK.

2. **Regular Associate I:** 01 January 1998 – 31 December 2005 (3 visits: duration of each one: minimum 42 days and maximum 90 days): The AS-ICTP, Trieste, **Italy**.
3. **Regular Associate II:** 01 January 2009 – 31 December 2014 (3 visits: duration of each one: minimum 42 days and maximum 90 days): The AS-ICTP, Trieste, **Italy**.
4. **Alexander von Humboldt Post-Doctoral Research Fellow-I** (under research fellowship program): 01 December 1999 – 31 May 2001: Ruhr-Universität Bochum, **Germany**.
5. **Alexander von Humboldt Post-Doctoral Research Fellow-II** (under long-term co-operation program): 01 June 2001 – 31 May 2002 & 01 January 2003 – 31 December 2003: Ruhr-Universität Bochum, **Germany**.
6. **Max-Planck Research Fellow** (under the financial support of the Max Planck Institute, MPE, Garching): 01 January 2004 – 31 March 2004: Ruhr-Universität Bochum, Bochum, **Germany**.
7. **Commonwealth Post-Doctoral Fellow:** 23 February 2009 – 31 March 2009: University of St. Andrews, St. Andrews, Scotland, **UK**.
8. **Alexander von Humboldt Research Awardee** (This award represents the amount of Euro 45,000.00 and an opportunity to undertake a prolonged periods of research in Germany): 02 June 2009 – 28 August 2009; 03 June 2010 – 16 August 2010; 02 June 2015 – 28 July 2015; 07-24 June 2016, Ruhr-Universität Bochum, Bochum, **Germany**.

## D. Awards/Distinctions

### I. National:

1. The '**Bangladesh Academy of Science (BAS) Gold Medal-2011**' in Physical Sciences (representing a Gold Medal wearied by the Prime Minister of the country) by the BAS, Dhaka, **Bangladesh**.
2. The '**BAS-TWAS Gold Medal-2004**' (representing a Gold Medal wearied by the Prime Minister of the country) in Physical Sciences jointly by the BAS (Bangladesh) and TWAS (Italy).
3. The **Pathikrit (Pioneer) Science Award-2019** (representing a Crest and the amount of TK. 50,000.00) by the Pathikrit (Pioneer) Foundation, Dhaka, **Bangladesh**.
4. The '**Bangladesh University Grants Commission (UGC) Prize-2008**' (representing a Certificate, a Crest and the amount of TK. 25,000.00) in Physical Sciences by the UGC, Dhaka, **Bangladesh**.
5. The '**Razzak-Shamsun Prize-2004**' (representing the amount of TK. 20,000.00) by the University of Dhaka, Dhaka, **Bangladesh**.
6. The **United Group Outstanding Paper Award-2013** (representing a certificate and the amount of TK. 1,00,000.00 for each article): The number of our papers awarded to us is 11, and the total number of papers awarded to all is 21).
7. The '**Best Young Scientist Prize-1992**' (representing a certificate and a Crest) by the Bangladesh Association for the Advancement of Science (BAAS), Dhaka, **Bangladesh**.

## II. International:

1. The '**Friedrich Wilhelm Bessel Research Award-2009**' (representing a certificate, the amount of Euro 45,000.00 and an opportunity to undertake a prolonged periods of research in Germany) by the Alexander von Humboldt Stiftung, Bonn, **Germany**.
2. The '**TWAS Young Physicist Prize-2006**' (representing the amount of US \$ 1,000.00) by the Third World Academy of Sciences (TWAS), Trieste, Italy.
3. The '**Young Physicist Medal and Certificate**' by the International Topical Conference on Plasma Physics, 3-7 July 2000, The AS-ICTP, Trieste, **Italy**.
4. The '**Alexander von Humboldt Post-Doctoral Research Fellowship**' to carry out the advanced research in Plasma Physics at the Ruhr-Universität Bochum, **Germany**.
5. The '**Alexander von Humboldt Long-Term Post-Doctoral Research Fellowship**' to conduct the innovative research in Plasma Physics at the Ruhr-Universität Bochum, **Germany**.
6. The offer for the **Senior Post-Doctoral Fellowship** by the Academic Authorities of Katholic Universiteit Leuven, **Belgium** to conduct research in astrophysical plasmas.
7. The offer for the appointment as **Foreign Professor** by **Higher Education Commission, Islamabad, Pakistan** under its Foreign Faculty Hiring Program.
8. The '**Commonwealth Post-Doctoral Fellowship**' by the Commonwealth Scholarship Commission in **London** to conduct the advanced research on Dusty Plasma Astrophysics at the **University of St Andrews, UK**.
9. The '**Commonwealth Scholarship**' by the Commonwealth Scholarship Commission in **London** to study for the degree of Ph. D. at the **University of St Andrews, UK**.
10. The offer for the '**ORS Scholarship**' by the **Association of UK Universities** to study for the degree of Ph. D. at the **University of Oxford, UK**.
11. **Top 2% scientists (position:130 out of 43,218** who are in top 2% scientists in the world) working in the fields of **fluids and plasmas** as well as **top 2% scientists (position: 28,781 out of 1,59,624** who are in top 2% scientists in the world) working in **all branches of sciences including medical and engineering sciences**.

## E. Research Field: Plasma Physics

**Nonlinear Phenomena (solitons, shocks, double layers, vortices, etc.) in**

- Complex (dusty) plasmas
- Astrophysical degenerate quantum plasmas
- Space multi-ion plasmas
- Laser produced plasmas

## F. Supervision of Research Students

1. 50 (fifty) M. Sc./M. Phil. research students had already been supervised.
2. 07 (seven) Ph. D. research students had already been supervised.
3. A number of M. Sc./M. Phil./Ph. D. research students are being supervised.

## G. Affiliation to Scientific Organizations

1. The elected **Fellow of The World Academy of Sciences (Trieste, Italy) for advancement of science and technology in developing countries.**
2. The elected **Fellow of the Bangladesh Academy of Sciences, Dhaka, Bangladesh.**
3. The **elected Fellow of the Bangladesh Physical Society, Dhaka, Bangladesh.**
4. The **member** of the `Association of Asia Pacific Physical Societies: Plasma Physics Division, Ibaraki, **Japan.**
5. The **member** of the Scientific Program Committee, International Topical Conference on Plasma Physics (ICTP), 03 – 07 September 2001, Faro, **Portugal.**
6. The **member** of the International Advisory Committee, International Topical Conference on Plasma Physics, 08 – 12 September 2003, Santorini, **Greece.**
7. The **member** of the International Advisory Committee, 4<sup>th</sup> International Conference on Physics of Dusty Plasmas (ICPDP-4), 13 – 17 June 2005, Orleans, **France.**
8. The **member** of the Scientific Program Committee, 5<sup>th</sup> International Conference on Physics of Dusty Plasmas (ICPDP-5), 18-23 May 2008, Azores, **Portugal.**
9. The **convener**, `A Daylong Seminar on `Science in Real Life`, 08 June 2008, Faculty of Mathematical & Physical Sciences, Jahangirnagar University, Dhaka, **Bangladesh.**
10. The **member** of the Advisory Board, International Advanced Workshop on Frontiers of Plasma Physics, 05 – 16 July 2010, ICTP, Trieste, **Italy.**
11. The **member** of the International Advisory Committee, 6<sup>th</sup> International Conference on Physics of Dusty Plasmas (ICPDP), 16 – 20 May 2011, Garmisch-Partenkirchen, **Germany.**
12. The **member** of the Scientific Program Committee, International Topical Conference on Plasma Science (ITCP), 12-14 September 2011, Lisboa, **Portugal.**
13. The **member** of the International Advisory Committee, International Conference on Physics of Dusty Plasmas (ICPDP), 16 – 20 May 2011, Garmisch-Partenkirchen, **Germany.**
14. The **member** of the International Advisory Committee, the 7<sup>th</sup> International Conference on Physics of Dusty Plasmas (ICPDP), 3 – 7 March 2014, University of Delhi, New Delhi, **India.**

15. The **member** of the Scientific Program Committee, **D3.6: (COSPAR2016): Role of nonthermal distributions in wave generation, particle heating and acceleration in space plasmas**, 30 July - 7 August 2016, Istanbul, **Turkey**.
16. The **member** of the Scientific Program Committee, the **18th International Congress on Plasma Physics**, 27 June – 1 July, 2016, Kaohsiung, **Taiwan**.
17. The member of the Scientific Program Committee, the 1<sup>st</sup> Asia Pacific Conference on Plasma Physics, 18-23 September 2017, Chengdu, **China**.
18. The **chair**, Scientific Program Committee, International Conference on Recent Advances in Mathematical & Physical Sciences, 27-30 January 2018, Jahangirnagar University, Dhaka, **Bangladesh**.
19. The observer (as a distinguished international scientist) in International Mustafa <sup>(PBUH)</sup> Prize Awarding Ceremony, 03 December 2017, Tehran, **Iran**.

## H. Talks in International Conferences/Workshops

1. The **invited talk**, Meeting on Dust Plasma Interaction in Space, 11 – 15 June 2001, Institute of Switzerland Space Institute (ISSI), Bern, **Switzerland**.
2. The **invited talk**, International Topical Conference on Plasma Physics, 03 – 07 September 2001, Faro, **Portugal**.
3. The **invited talk**, Meeting on Dust Plasma Interaction in Space, 25 – 30 November 2001, ISSI, Bern, **Switzerland**.
4. The **invited talk**, International Topical Conference on Plasma Physics, 08 – 12 September 2003, Santorini, **Greece**.
5. The **invited seminar** on 'Physics of Plasmas and Dusty Plasmas', 20 October 2003, Umeå, **Sweden**.
6. The **invited talk**, the 11<sup>th</sup> Regional Conference on Mathematical Physics: 03 – 7 May 2004, IPM, Tehran, **Iran**.
7. The **invited talk**, Workshop on Theoretical Plasma Physics: 05 – 16 July 2004, Trieste, **Italy**.
8. The **invited talk**, 12<sup>th</sup> International Congress on Plasma Physics: 25 – 29 October 2004, Nice, **France**.
9. The **invited talk**, 4<sup>th</sup> International Conference on Physics of Dusty Plasmas: 13 – 17 June 2005, Orleans, **France**.
10. The **invited lectures**, Autumn College on Plasma Physics, 05 – 30 September 2005, Trieste, **Italy**.
11. The **invited talk**, International Workshop on Plasma Dynamics, 18 – 22 December 2006, IPM, Tehran, **Iran**.
12. The **invited lectures**, Summer College on Plasma Physics, 30 July – 24 August 2007, Trieste, **Italy**.

13. The **invited talk**, International Workshop on Modern Plasma Physics, 14-25 July 2008, The AS-ICTP, Trieste, **Italy**.
14. The **invited seminar** on 'Physics of Dusty Plasmas', 06 March 2009, University of St. Andrews, St. Andrews, Scotland, **UK**.
15. The **invited lectures**, International Workshop on Frontiers of Plasma Physics, 05 – 16 July 2010, ICTP, Trieste, **Italy**.
16. The **plenary-talk**, the 6<sup>th</sup> International Conference on Physics of Dusty Plasmas (ICPDP), 14 – 20 May 2011, Garmisch-Partenkirchen, **Germany**.
17. The **plenary talk**, The 7<sup>th</sup> International Conference on Physics of Dusty Plasmas (ICPDP), 3 – 7 March 2014, New Delhi, **India**.
18. The **invited talk**, The general colloquium of Faculty of Physics and Astronomy, 22 June 2015, Rhur-Universität Bochum, Bochum, **Germany**.
19. The **plenary talk**, the 2<sup>nd</sup> AAPPS-DPP Conference, 12-16 November 2018, Kanazawa, **Japan**.

## I. Administrative Experiences

1. **Director** (in-charge) of Wazed Miah Science Research Centre, Jahangirnagar University, Savar, Dhaka, Bangladesh from 18 February 2019 to date.
2. The **Member** of the Governing Body of the "Bangladesh National Scientific and Technical Documentation Centre", Dhaka, Bangladesh from 01 January 2019 to date.
3. The **Member** of the Governing Body of the "Bangladesh Science and Technology Museum", Dhaka, Bangladesh from 01 January 2019 to date.
4. The **Provost** (Head) of the 'Fazilatunnessa Hall' of Jahangirnagar University, Savar, Dhaka, Bangladesh, from 18 February 2006 to 17 February 2009.
5. The Elected '**Senate Member of Jahangirnagar University**', Savar, Dhaka, Bangladesh: from June 2015 to date.
6. The **Elected President (1<sup>st</sup> time)** of "Jahangirnagar University Teachers' Association" for the year 2012 (i.e. from 01 January 2012 to 31 December 2012).
7. The **Elected President (2<sup>nd</sup> time)** of "Jahangirnagar University Teachers' Association" for the year 2020 (i.e. from 01 January 2020 to 31 December 2020).
8. The **Selected Vice-President** of 'Bangladesh University Federation' for year 2020-2021.
9. The Member of the '**Disciplinary Committee**' of Jahangirnagar University, Savar, Dhaka, Bangladesh, from 18 February 2006 to 17 February 2009.
10. The Member of the '**Academic Council**' of Jahangirnagar University, Savar, Dhaka, Bangladesh, from 18 April 2004 to date.

11. The **Chancellor** nominated Member of **Associate & Professor Selection Board** of Physics Department in Begum Rokeya University, Rangpur, Bangladesh, from 2010 to date.
12. The **Chancellor** nominated Member of **Associate & Professor Selection Board** of Physics Department in Shahjalal University of Science & Technology (SUST), Shylhet, Bangladesh, from 2017 to date.
13. The Member of **Lecturer/Assistant Professor Selection Board** of Physics Department in the University of Rajshahi, Rajshahi, Bangladesh, from 2010 to 2015.
14. The Member of **Lecturer/Assistant Professor Selection Board** of Physics Department in M. B. Science & Technology University, Tangail, Bangladesh, from 2011 to 2014.
15. Member of the Jury Board for selecting the Best Young Scientist Prize-2011 Winner in International Conference on Physics of Dusty Plasmas (ICPDP), 16 – 20 May 2011, Garmisch-Partenkirchen, **Germany**.
16. The **Editorial Board Member** of the '**African Journal of Mathematics and Computer Science Research**', published by Academic Journals, **Nigeria**.
17. The **Guest Editor** of the **Journal of Plasma Physics**, Vol.77 (Issue 1: Special Issue, 2010), Published by the Cambridge University Press, **England**.
18. The **Editor** of the '**Jahangirnagar University Journal of Physics**' from 2011 to 2013.
19. The **Chief Adviser** of '**Jahangirnagar University Science Club**', Dhaka, Bangladesh from 2014 to 2017.
20. The Member of the Evaluation Committee for the **COMSTECH Award** for the **Best Scientific Book-2015** in **OIC**.
21. The **Editorial Board Member** of the Journal: '**Advances in Astrophysics**' published Isaac Scientific Publishing, **Korea**.
22. The **President** of '**Jahangirnagar Physics Alumni Association (JUPPA)**', Jahangirnagar University, Dhaka, Bangladesh: from 2016- to date.
23. The **Associate Editor** of the Journal, '**Review of Modern Plasma Physics**' published by **Springer Nature**.
24. The **Chair**, Scientific Program Committee, International Conferences on Recent Advances in Mathematical and Physical Sciences, 27-29 January, 2018, Dhaka, **Bangladesh**.
25. **Co-chair** of the program committee in charge of sessions for Strongly-Coupled Dusty/Quantum Plasmas in the 2<sup>nd</sup> AAPPs-DPP Conference, 12-16 November 2018, Kanazawa, **Japan**.
26. Member of the **Jury Board for selecting Chandrasekhar Prize-2018 winner** in the 2<sup>nd</sup> AAPPs-DPP Conference, 12-16 November 2018, Kanazawa, **Japan**.



## J. Research Contribution

### **OVERVIEW:**

- Textbook published by IoP (London): 01
- Articles in peer reviewed international journals: 426
- Articles in Conference Proceedings: 09
- Articles in Edited Books Published by Multinational Publishers: 06

### **GOOGLE SCHOLAR INDIES:**

- Total Citations: 14,500+
- h-index: 52
- i10 index: 251

(Source: [http://scholar.google.com/citations?user=uOLOQ\\_SkAAAAJ&hl=en](http://scholar.google.com/citations?user=uOLOQ_SkAAAAJ&hl=en)).

## K. References

**1. Profrofessor Dr. Farzana Islam**

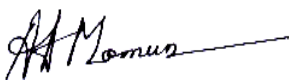
Vice Chancelor  
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**2. Emeritus Professor Dr. R. A. Cairns**

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Date: 01/01/2021