



ডঃ আল-নকীব চৌধুরী

Dr. Al-Nakib Chowdhury

Former Vice-Chancellor
Pabna University of Science &
Technology
Pabna-6600, Bangladesh

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Professor (Grade-1) & Ex-Chairman
Department of Chemistry
Bangladesh University of Engineering
and Technology (BUET), Dhaka-1000,
Bangladesh

Mobile: +8801716620026

Phone: +880 2 55167100, Extn. 6831

(off), 7570 (res), FAX: 880 2 5861 3046



Contact Address: [REDACTED]

Department of Chemistry
Bangladesh University of Engineering and Technology (BUET)
Dhaka-1000, Bangladesh
Cell: +8801716620026

Date and Place of Birth: [REDACTED]

18 February, 1961
Cumilla, Bangladesh
Nationality: Bangladeshi by birth

Religion: [REDACTED]

Islam

Family: [REDACTED]

Father: Late Mazajul Islam Chowdhury
Mother: Late Shamsun Nahar
Wife: Mrs. Nurtaj Begum
Daughters: Faria Tasnim Chowdhury
Farina Tahsin Chowdhury
Fariba Tanzim Chowdhury

Vision: [REDACTED]

- to foster the highest quality education, research and service for our students.
- to take the university to the next level of its full potential.
- to develop and nourish a supportive environment where our students, staff and faculty can grow and work toward their greatest human potential.
- to cultivate a spirit of compassion, community and empowerment so as to engage all constituencies in articulating a collective vision for the university.
- to strive for individual success not at the expense of others but for the sake of others.
- to advocating for and representing the university at the external world and fostering the visibility and stature of its programs and units at the regional, national and international level.

- to cultivating and recognizing excellence, innovation and creativity and creating an atmosphere in which diverse talents can find effective expression.
- to explore innovative revenue generation programs and projects and expansion possibilities.
- to keep abreast of trends and development in higher education and developing collaborative capacity to respond to changing environments and requirements.
- to pay particularly attention to human dimensions and interpersonal, group, organizational and societal dynamics.
- to support enhancement curriculum and co-curriculum activities and fostering interdisciplinary and inter organizational collaboration.
- to offer opportunities for national and social, events, ceremonies and retreats that can relieve stress and contribute to building and nurturing team spirit and patriotism.

Philosophy: 

- Trustworthiness, honesty and integrity.
- Firmness, equality, inclusiveness, tolerance and mutual respect.
- Teamwork, cooperation and collaboration.
- Commitment, passion and dedication to mission and vision
- Strategic planning, assessment and continuous improvement.
- Consideration for fellow and service to humanity.
- Innovation and flexibility to respond to changing environment.

Educational Background: 

- **Ph.D.**, specialization in Material Chemistry from Hiroshima University, Hiroshima, Japan, 1996.
- **M.Phil.**, specialization in Physical Chemistry from Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, 1992.
- **M.Sc.**, specialization in Physical Chemistry from University of Dhaka, Dhaka, Bangladesh, 1984.
- **B.Sc. (Hons)**, in Chemistry from University of Dhaka, Dhaka, Bangladesh, 1983.

Employment record: 

<i>Institution</i>	<i>Designation</i>	<i>Period</i>
Pabna University of Science and Technology	Vice-Chancellor	02.01.2014 – 01.01.2018
Bangladesh Univ. of Engg. and Technology (BUET)	Professor	30.4.2005 – to date
Bangladesh Univ. of Engg. and Technology (BUET)	Associate Professor	14.5.2000 – 29.4.2005
Bangladesh Univ. of Engg. and Technology (BUET)	Assistant Professor	10.7.1996 – 13.5.2000
Bangladesh Univ. of Engg. and Technology (BUET)	Lecturer	28.8.1989 – 9.7.1996
University of Asia Pacific	Part-time Faculty for undergrad course	2005-2013

Islamic University of Technology (IUT)	Part-time Faculty for PhD course	2009
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Honors and Awards:

- Monbusho Scholarship (1993-1996) awarded by Ministry of Education, Japan for pursuing *Ph.D. degree* in Japan.
- JSPS Fellowship (1999-2001) awarded by Ministry of Education, Japan for pursuing *post-doctoral research* in Japan (ID- P 99106).
- Awarded Honorary Membership by the American Association for the Advancement of Science (AAAS), USA, 2003.
- Awarded Honorary Full Membership by the American Nano Society, USA, 2011.
- JASSO Follow-up Research Fellowship by the Japanese Government as “*Visiting Researcher*” at Tokyo Institute of Technology, Japan, September 14 - December 13, 2005.
- The Netherlands Government Fellowship (NFP) for attending a short-course at UNESCO-IHE Institute for Water Education, Delft, The Netherlands, April 10-27, 2007.
- JSPS Invitation Fellowship (short-term) by the Japanese Government as “*Visiting Professor*” at Tokyo Institute of Technology, Japan, May 17 - July 15, 2007 (ID- S 07078).
- JSPS Invitation Fellowship (long-term) by the Japanese Government for “*Research*” at Tokyo Institute of Technology, Japan, May 15, 2008 - February 28, 2009 (ID- L 08529).
- Religious Honor: Performed Holy Hajj in 2014 as a Royal Guest of His Excellencies King Abdullah bin Abdul Aziz of The Kingdom of Saudi Arabia (KSU).
- Indian Government Fellowship (ITEC) for attending a short-course on “*Science Technology and Innovation Policy*” at Indian Institute of Sciences (IISc), Bangalore, India, 27 November– 03 December, 2019.

Administrative Experiences:

- **Vice-Chancellor**, Pabna University of Science & Technology, January 02, 2014 – 01.01.2018.
- **Dean**, Faculty of Engineering and Technology, Pabna University of Science & Technology, January 02, 2014 – 30.09.2014.
- **Dean**, Faculty of Life and Earth Sciences, Pabna University of Science & Technology, January 02, 2014 – 31.12.2017.
- **Director**, Institute of Modern Language, Pabna University of Science & Technology, January 02, 2014 – 31.08.2015.
- **Head (Chairman)**, Department of Chemistry, BUET, September 26, 2009 – September 25, 2011.
- **Deputy Director**, Directorate of Student Welfare, BUET, October 02, 2004 – May 14, 2007.
- **Assistant Provost**, Shahid Smrity Hall, October 19, 1997 - August 31, 1999.
- **Assistant Provost**, Ahsan Ullah Hall, July 04, 2001 - July 31, 2004.
- **Acting Provost**, Ahsan Ullah Hall, several times during July 04, 2001 - July 31, 2004.
- **Provost**, Ahsan Ullah Hall, January 11, 2021 - To date.
- **Polling officer** Central and Hall students’ union election of BUET.
- **Member**, Organizing Sub-Committee, 8th Convocation of BUET, 2005.
- **Convener**, Organizing Sub-Committee of several Annul Sports of BUET.
- **Member**, selection committees for recruitment of faculty and staff, BUET
- **Chairman**, Examination committee of BUET
- **Member**, Admission Examination committee of BUET
- **Member**, Tender committee of BUET.
- **Member**, Committee for the Advisory and Scientific Research (CASR), BUET, 2006-08.
- **Member**, Committee for financial grant for the faculty joining conference in abroad, BUET.
- **Member**, Investigation committee of BUET.

- **Member**, Governing Body, BUET School & College, 2012-2014.

Professional Affiliations:

- Life Member, Bangladesh Chemical Society [LM-618] (since 1998).
- Life Member, Bangladesh Association for the Advancement of Science (BAAS) [LM-440(iv)] (since 1998).
- Life Member, Dhaka University Chemistry Alumni Association (DUCAA) [LM-19], (Since 1999).
- Member, Bangladesh Chemical & Biological Society of North America (BCBSNA), (1997-2000)..
- Member, American Association for the Advancement of Science (AAAS), USA (2003).
- Member, Editorial Board, News Bulletin, Bangladesh Chemical Society (2003-2004).
- Life Member, Japanese Universities Alumni Association in Bangladesh (JUAAB), (since 2002).
- Life Member, Bangladesh JSPS (Japan Society for the Promotion of Science) Alumni Association [LM-38] (since December 2010).
- Life Member, Dhaka University Alumni Association [LM-5364] (since January 19, 2011).
- Life Member, Dhaka University Registered Graduate [LM-17182], (since January 23, 2011).
- Member, Holland (The Netherlands) International Fellows Alumni Association (since 2007).
- Full Member, American Nano Society (since June 2011).
- Life Member, Bangladesh Crystallographic Association (since 2013).

Professional Community Activity:

- **General Secretary**, BUET Teachers Association, 2003.
- **General Secretary**, Bangladesh Chemical Society, 2013-14.
- **Secretary General Elect** of the Executive Committee of the Federation of Asian Chemical Society (FACS), 2013-15.
- **Member, Advisory Council 2013-15**, JUAAB (Japan Universities Alumni Association), Dhaka, Bangladesh.
- **Vice-President**, Executive Committee 2011-2013, Bangladesh JSPS (Japan Society for the Promotion of Science) Alumni Association, Dhaka, Bangladesh.
- **Vice-President**, Executive Committee 2013-2015, Bangladesh JSPS (Japan Society for the Promotion of Science) Alumni Association, Dhaka, Bangladesh.
- **Joint Secretary**, Executive Committee 2003-2004, Bangladesh Chemical Society, Dhaka, Bangladesh.
- **Moderator (Chief Advisor)**, Badhan-BUET zone (a blood donor organization), 2006-2010.
- **Founder Organizer**, Nanotechnology Initiatives in Bangladesh, 2012.
- **Founder Convener**, Bangladesh STEM (Science, Technology, Engineering and Mathematics) Society, February 2019- to date.
- **President**, BUET Chemistry Alumni Association (CAAB), 2019 - to date
- **President**, Bangladesh STEM Foundation, January 2021 - to date
- **President**, Bangladesh Nano Society, January 2021 - to date
- **Advisor**, Bangladesh Society for Nano and Advanced Drug Delivery Systems (BSNADDS), January 2021 - to date.

Professional Works at National & International Level:

- Worked as **Expert Member** for the Public Service Commission, Govt. of Bangladesh, Dhaka, 2019.
- Working as **Expert Member** for the Selection Committee (for Supernumerary Professor) of Dhaka Univ of Engg & Tech (DUET), Gazipur, Bangladesh. (2018 - to date).
- Working as **Expert Member** for the Selection Committee (for Professor & Associate Professor) of Shajalal Univ. of Sci. & Tech. (SUST), Sylhet, Bangladesh. (2018 - to date).

- Working as **Expert Member** for the Selection Committee (for Professor & Associate Professor) of Chittagong University, Bangladesh. (2016 - to date).
- Worked as **Expert Member** for the Selection Committee (for Professor & Associate Professor) of Dhaka University of Engineering and Technology (DUET), Bangladesh. (2011-2013).
- Worked as **Expert Member** for the Selection Committee (for Assistant Professor & Lecturer) of Khulna University of Engineering and Technology (KUET), Bangladesh. (2010-2013).
- Worked as **Member** of the Examination Committee, Bangladesh Military Science and Technology Institute (MSTI), Dhaka, Bangladesh, 2002, 2011.
- Worked as **Member** of the Examination Committee for the University of Dhaka, University of Chittagong, University of Rajshahi, Shajalal Science and Technology University, Jagannath University, Bangladesh.
- Worked as **External Member** of the Committee of Post Graduate Courses and Studies (CPGCS), Khulna University of Engineering and Technology (KUET), Khulna, Bangladesh, 2001.
- Worked as **Member Secretary** of Seminar and Symposium Committee of the Twentieth Bangladesh Science Conference organized by Bangladesh Association for Advancement of Science (BAAS), 28-30 November, Dhaka, 1998.
- Worked as **Chief Editor**, "News Bulletin" publishes by Bangladesh Chemical Society, 2013-14.
- Working as **Reviewer for the local Journals**: J. Bangladesh Academy of Sciences, J. Bangladesh Chemical Society, Dhaka University Journal of Science, Jahangirnagar University Journal of Sciences, Bangladesh.
- Worked as **Member, Editorial Board** of "International Journal of Chemical Sciences" (Quarterly Research Journal, ISSN: 0972-768X, India), Rasayan Journal of Chemistry (An International Quarterly Research Journal, ISSN: 0974-1496, India).
- Worked as **Member of Nanotech Expert panel** of ISESCO, Morocco, 2012.
- Participated as an **Expert from Bangladesh** side in the High-Level South Asia Regional GDLN Dialogue on South Asia Regional Collaboration in Nanotechnology for Development, 21 May 2009, Dhaka [A multi-country videoconference discussion connecting through World Bank Headquarters, Washington DC with the GDLN VC Centers in Colombo, Delhi, Dhaka, and Islamabad. Organized in collaboration with GDLN (Global Development Learning Network) and the World Bank].
- Worked as an **international Reviewer** for the Research Projects of King Fahd University of Petroleum and Minerals, Dhahran 31261, Saudi Arabia.
- Worked as **Expert Member** for the PhD committees of Pune University, India.
- **Session Chair** of the international conferences: The 3rd ISESCO International Workshop and Conference on Nanotechnology (IWCN 2012), Kuala Lumpur, Malaysia, December 5-7, 2012.
- **Session Chair** of the international conferences: *Application of Nanotechnology in Industry: Opportunity of Integration Among IDB Member States*, Cairo, Egypt, January 29-31, 2012.
- **Member**, in drafting the ethical Guidelines for the Practice of Chemistry under the Norms of the Chemical Weapons Convention, OPCW, Hague, The Netherlands, March 10-11, 2015.
- **Member**, Editorial Board, BCBSNA Newsletter, USA, (1999-2000).
- Worked as **Reviewer for the International Journals**: J. Appl. Polym. Sci. (Wiley InterScience), Materials Chemistry and Physics (Elsevier Science), J. Materials Science (Springer), Sensors and Actuator (Elsevier Science), Electrochimica Acta (Elsevier Science), J Hazard Mat (Elsevier Science), Journal of Physical Chemistry (American Chemical Society), Journal of Saudi Chemical Society (Elsevier Science), Applied Catalysis B: Environmental (Elsevier Science), Results in Physics (Elsevier Science), Journal of Inorganic and Organometallic Polymers and Material (Springer), International Nano Letter (Springer, USA), The Journal of Nanostructure in Chemistry (Springer, USA), The Journal of Experimental Nanoscience (Taylor & Francis, UK), Journal of the Taiwan Institute of Chemical Engineers (Elsevier Science), Particulate Science and Technology (Taylor and Francis, UK), Journal of Physics and Chemistry of Solids (Elsevier Science).

Theme Lecture:

International workshop on “Nanotechnology” 21-23 September 2012, Dhaka, “Nanotechnology – Science and Technology at a New Height”.

Key-note Speaker:

2013 International Conference of **Business and Applied Sciences Academy of North America (BAASANA), New York, USA**, 15-17 August, 2013: “Mn Oxide Nanoparticles for the Treatment of Dye Contaminated Water Environment”.

Khulna University of Engineering and Technology (KUET), Dhaka, Bangladesh, September, 2012, “Nanotechnology: Science and Technology at a New Height” delivered at the University Day of KUET.

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh, April, 2008, “Nanotechnology for the Environment: A New Hope for Clean Water”, delivered at a specialized seminar of BUET.

Bangladesh Chemical Industries Corporation, Dhaka, Bangladesh, August, 2012, “Nanotechnology: A Big Potential for Today’s Industry”.

Ministry of Industries, Govt. of Bangladesh, Dhaka, Bangladesh, June, 2012, “Nanotechnology: New Opportunities for Sustainable Development”.

The Daily Star, Dhaka, Bangladesh, April, 2012, “Nanotechnology and It’s Prospect in Bangladesh” delivered at a seminar arranged by The daily Star (The most leading English daily news paper of Bangladesh).

Bangladesh JSPS Alumni Association Symposium, Dhaka, Bangladesh, February 2012, “Nanotechnology: Switching from ‘larger-to-smaller’ – A New Trend in Science and Technology”.

7th International Seminar on Green Technology and Society, University of Dhaka, Dhaka, Bangladesh, January 30, 2016, “Development of Green Technologies- Chemistry as a Potential Means”.

International Conference on Bio-composites and Nanocomposites, Khulna University, Khulna, Bangladesh, October 2018, “*Current Trends in Material Design- Materials in Nanoscale Dimension*”.

International Conference on Science and Technology for Celebrating the Birth Centenary of Bangabandhu (ICSTB-2021), Bangladesh Council of Scientific and Industrial Research(BCSIR), Dhaka, Bangladesh, 11-13 March, 2021, “Nanotechnology in the Era of 4IR”.

Guest Speaker:

Tokyo Metropolitan University, Tokyo, Japan, December 2005: “Conducting Polyaniline Sensor for Arsenic Detection”.

Tokai University, Kanagawa, Japan, July 2007: “Removal of Organic Dyes by Conducting Polymeric Adsorbent”.

Hiroshima University, Hiroshima, Japan, June 2007: Surface Active Conducting Polyaniline Materials.”

Tokyo Institute of Technology, Tokyo, Japan, May 2007: “Conductive Polymers for the Environmental Issues.”

Tohoku University, Sendai, Japan, November 2008: “-NanoTech for Today and Near Future - A Study Focused on Color Free Water by Nanomaterials.”

Flinders University, Adelaide, Australia, April 2013, “Mn Oxide Nanoparticles for the Treatment of Dye Contaminated Water Environment”.

Invited Speaker:

“Synthesis of Organic Conducting Polymer Colloids under Sonication”, *2000 International Symposium on Organic Reactions*, October 26-28, **Tokyo, Japan**, 2000.

“Arsenic Detection by Nano-Gold/Polymer Modified Glassy Carbon Electrode”, *IUPAC Second International Symposium on Green/Sustainable Chemistry*, **Delhi, India**, January 10-13, 2006

“Design of Electronically Conducting Polyaniline/nano-Gold Sensor and It’s Application to Arsenic Detection”, *1st International Symposium on Innovations in Advanced Materials for Optics and Electronics (ISIAMOE-1-La Rochelle 2006)*, **La Rochelle, France**, June 14-17, 2006.

"NanoTech Today - Decolorization of Water by Mn₃O₄ Nanoparticles", *The 2nd ISSESCO International Workshop and Conference on Nanotechnology(IWCN 2010)*, **Kuala Lumpur, Malaysia**, January 25-27, 2010.

"— Gold-over-Gold Nanostructured Electrode Ensemble — Could be a Promising Architecture in Designing Electroanalytical Tool", *Application of Nanotechnology in Industry: Opportunity of Integration Among IDB Member States*, **Cairo, Egypt**, January 29-31, 2012.

"Gold Nanoelectrode Ensemble – A Promising Arsenic (As) Sensor", *The 3rd ISSESCO International Workshop and Conference on Nanotechnology(IWCN 2012)*, **Kuala Lumpur, Malaysia**, December 5-7, 2012.

Contribution to the Promotion of Science and Technology in the Country:

- **Organized** for the first time International workshop on "Nanotechnology" in September 2012, Dhaka, Bangladesh.
- Worked as **Member Secretary**, International workshop on "Nanotechnology" September 2012, Dhaka.
- Worked as **Expert Member** of a national initiative committee for the establishment of a Nanotech Center in Bangladesh by the Ministry of Science and Technology, Govt. of Bangladesh, 2013.
- Worked as **Expert Member** for reviewing the Industrial Biotechnology Policy of the Ministry of Industries, Govt. of Bangladesh, 2013.
- Worked with Ministry of Education for framing the Bilateral Agreement on Education in science and technology between the Ministries of Education of Bangladesh and Republic of Belarus, 2013.
- Working as **Reviewer** for the Research Projects funded by the University Grants Commission (UGC) and Ministry of Education, Govt. of Bangladesh.
- Worked as **Member** of a national committee formed for the establishment of a world standard laboratory in Bangladesh for testing food and drink items, Bangladesh Agricultural Research Council, October, 2006.
- Worked as **Member** in the Fine Chemicals Division of Bangladesh Standard and Testing Institute (BSTI), Dhaka, Bangladesh, 2001.
- Worked as **Secretary General Elect** of the Executive committee of the Federation of Asian Chemical Society (FACS), 2013-15 and as the **Organizing Secretary General Elect** of the Asian Chemical Congress (ACC16) held in Dhaka, 2015.
- Worked as **Organizing Joint-Secretary** of Bangladesh Chemical Congress 2006 (International Conference), Dhaka, 7-10 December, 2006.
- Worked as **Organizing Joint-Secretary** of Bangladesh Chemical Congress 2004 (International Conference), Dhaka, 9-11 December, 2004.
- Worked as **Member Secretary** of Seminar and Symposium Committee of the Twentieth Bangladesh Science Conference organized by Bangladesh Association for Advancement of Science (BAAS), 28-30 November, Dhaka, 1998.
- Working as **Member, Advisory Council 2013-15**, JUAAB (Japan Universities Alumni Association), Dhaka, Bangladesh.
- Worked as **Vice-President**, Executive Committee 2011-2013, Bangladesh JSPS (Japan Society for the Promotion of Science) Alumni Association, Dhaka, Bangladesh.
- Worked as **Vice-President**, Executive Committee 2013-2015, Bangladesh JSPS (Japan Society for the Promotion of Science) Alumni Association, Dhaka, Bangladesh.
- Worked as **Joint Secretary**, Executive Committee 2003-2004, Bangladesh Chemical Society, Dhaka, Bangladesh.
- Worked as **Member** of a BJSPSAA committee for the establishment of a "Bangladesh-Japan Academy for the Promotion of Science (BAJAAS)" in Bangladesh, 2013.
- Worked as **Editor**, "News Bulletin" publishes by Bangladesh Chemical Society, 2013-14.
- Worked as **Chief-Editor** for the book "Innovations in Nanomaterials" ISBN: 978-1-63483-572-5, *Nova Science Publishers, Inc., New York, USA*. October 2015.

- Worked as **Chief-Editor** for the book “Trends in Polyaniline Research”, ISBN: 978-1-62808-424-5, *Nova Scientific Publishers Inc, New York, USA*, May 2013.
- **Authored** the book “Preparation and Categorization of Nickel Dispersed Polyaniline Matrix” ISBN: 987-3-639-34361-8, *VDM Verlag Dr. Muller e.k., Germany*, March 2011.
- Actively **coordinating** for the formation of Bangladesh Nanotech Society.
- Establishing contact with ISESCO and COMSTECH for possible funding to hold awareness campaign and organizing Science and Technology Conferences in Bangladesh.
- Established collaboration between BUET and TIT (Tokyo Institute of Technology, Japan) for pursuing higher studies (MS & PhD) of BUET faculties and students.
- To popularize Nanotechnology education and research in Bangladesh, delivered Key-note or Invited lectures at Bangladesh University of Engineering and Technology (BUET), Khulna University of Engineering and Technology (KUET), The Daily Star Seminar, Ministry of Industries, Govt. of Bangladesh, Bangladesh JSPS Alumni Association Symposium.
- Published an article on Nanotechnology in the “Science” section of the Daily Star, February 28, 2012.
- Worked as **Organizing Chair**, Chemistry Today - Virtual Education and Research Lecture Series in Science, Technology and Engineering, BUET Chemistry Alumni Association (CAAB), Dhaka, Bangladesh, 1-11 September, 2020.

Contribution to the Development of Laboratory Facilities for Research:

(a) Laboratory Development:

- Established “Chemistry Material Research Laboratory’ in the Department of Chemistry, BUET for advanced research on new materials viz. nano- and polymeric materials, electrochemistry, environment and energy.
- Working as laboratory in-charge of Chemistry Material Research Laboratory, Department of Chemistry, BUET.
- Developed three-electrode electrochemical system for electroplating and electrosynthesis of organic and inorganic thin films.
- Developed two- and three- point probe system for solid-state d.c. conductance measurements under illumination and dark.
- Developed optical system for spectral analysis of thin solids.
- Actively involved in developing test procedures and apparatus for quantifying water pollution, particularly dye effluent from the textile industries.
- Actively involved in the development of various testing facilities in accordance with ASTM and British Code.

(b) Staff Development:

- Trained the teaching assistants for various instrumental techniques related to physical, electrochemical and analytical chemistry experiments.
- Trained the laboratory attendants on handling and preservation of toxic chemicals and apparatus.
- Trained technicians on electrochemical and spectrophotometric techniques of analysis.
- Lecturing periodically to the research students and laboratory staffs on chemical safety.

Professional Visits Abroad:

- Japan, China, Hong Kong, India, Nepal, Sri Lanka, South Korea, The Philippines, Malaysia, Singapore, Thailand, Saudi Arabia, Qatar, UAE, Bahrain, Egypt, Turkey, The Netherlands, France, Germany, Australia, UK, USA.

Supervision of Thesis Works:

- Completed Thesis Works: M.Phil : 21

- On-going Thesis Works: Ph.D : 02
- On-going Thesis Works M.Phil.: 01
- On-going Thesis Works M.Sc.: 07

Externally Funded Research Projects:

1. "Preparation of Microcrystalline and Nanocrystalline Cellulose from Cotton Rag (garment waste)", Ministry of Science and Technology, Govt. of Bangladesh, under Special Allocation Program, 2012-13.
2. "Low Cost Chemical Synthesis of Graphene-based Nano-composites for Its Viable Application in Energy, Environment, and Antibacterial Activities, Ministry of Science and Technology, Govt. of Bangladesh, under Special Allocation Program, 2013-14.
3. "Development of a Polymeric Nano-carrier for Anti-obesity Drug Delivery System" (PS20191074), Ministry of Education, Govt. of Bangladesh, 2019-22.
4. "Preparation of Green Adhesives Utilizing Supramolecular Dynamic Bonds of Polymers" (Phy's-540), Ministry of Science and Technology, Govt. of Bangladesh, 2019-20.
5. "Development of a Zeolite Networked Nano-filter to Trap Toxics Present in Air and Water Systems", Ministry of Science and Technology, Govt. of Bangladesh, under Special Allocation Program, 2020-21.
6. "Fabrication of a Cellulose Capped Nano Mn₃O₄-Ag Heterostructure and Study of Its Efficacy for Dye Degradation and Antimicrobial Activity in Water", University Grants Commission of Bangladesh, 2021-22.
7. "A Novel Biomass Derived Na/K-ion Battery Prototype for the Next Generation Low-cost Energy Storage System" (EPRC/58-2019-001-01), Bangladesh Energy and Power Research Council (EPRC), Ministry of Power and Energy, Govt. of Bangladesh, 2021-23.

Research Publication:

a) Books:

1. **A.-N. Chowdhury** (Editor-in-Chief), J. Shapter, and A. B. Imran. "Innovations in Nanomaterials" ISBN: 978-1-63483-572-5, Nova Science Publishers, Inc., New York, USA. October 2015.
2. **A.-N. Chowdhury** (Editor-in-Chief), T. Ohsaka, M. A. Rahman and M. M. Islam, "Trends in Polyaniline Research", ISBN: 978-1-62808-424-5, Nova Scientific Publishers Inc, New York, USA, May 2013.
3. M. Saiful Islam, **A.-N. Chowdhury** and H. R. Sobuz, "Preparation and Categorization of Nickel Dispersed Polyaniline Matrix" ISBN: 987-3-639-34361-8, VDM Verlag Dr. Muller e.k., Germany, March 2011.
4. R. Shakil, M. H. Rumon, Y. A. Tarek, C. K. Roy, **A.-N. Chowdhury**, R. Das, "Surface Modified Nanomaterials Based Catalytic Materials for Water Purification, Hydrocarbon Production, and Pollutant Remediation" in "Modified Nanomaterials for Applications in Catalysis", Elsevier, USA, May 2021.

5. **A.-N. Chowdhury et.al.**, "Polymeric Membranes for O₂/N₂ Separation" in Polymeric Membranes for Water Purification and Gas Separation, Materials Research Forum LLC, Millersville PA, USA (Invited contribution, submitted, 30 June, 2021).
6. **A.-N. Chowdhury**, R. Das and Swagato Datta, "Emerging Nanotechnology-enabled Approaches to Tackle SARS-COV-2", to be submitted to Elsevier, USA, 2021.

b) Journal Publications (recognized and refereed journals / proceedings):

- 1) A. J. Mahmood, **A.-N. Chowdhury** and M. M. Rahman, "Adsorption Characteristics of Methane on Cr(III) Oxide / Ni(II) Oxide Surface", *J. Bangladesh Chem. Soc.*, 1992, **5(I)**, 45-51.
- 2) K. Yamashita, Y. Kunugi, Y. Harima and **A.-N. Chowdhury**, "Fabrication of an Organic *p-n* Homojunction Diode Using Electrochemically Cation and Photochemically Anion Doped Polymer", *Japanese Journal of Applied Physics*, 1995, **34**, 3794-3797, (International Journal).
- 3) **A.-N. Chowdhury**, Y. Kunugi, Y. Harima and K. Yamashita, "Electrochemical Switching to *p*- and *n*- Type Semiconductance with Poly (3-Methyl Thiophene) Film", *Thin Solid Films*, 1995, **271**, 1-3, (Elsevier Science, USA).
- 4) **A.-N. Chowdhury**, Y. Harima, Y. Kunugi and K. Yamashita, "*p*- and *n*- Type Conductance of Electrochemically Synthesized Poly (3-Methyl Thiophene)", *Electrochimica Acta*, 1996, **41**, No. 13, 1993 – 97, (Pergamon, USA).
- 5) **A.-N. Chowdhury**, "Characterization of Electrochemically Synthesized Conductive Polymers and Their Application to Electronic Devices", *Science Reports*, Hiroshima University, Japan, 1996, **22**, 211-214.
- 6) **A.-N. Chowdhury**, R. A. Khan and M. Hossain, "Influence of Doping on the Structure and Electrical Properties of Poly (aniline)", *Indian J. Chem.* 2000, **39A**, 501-506.
- 7) M. Atobe, **A.-N. Chowdhury**, Y. Suda and T. Nonaka, "Electrooxidative Polymerization of Aromatic Compounds Under Centrifugal Field", *Proceeding of 197th Meeting of the electrochemical Society*, Toronto, Canada, May 14-18, 2000, **vol. 2000-15**, p. 132-135.
- 8) **A.-N. Chowdhury**, R.A. Khan, M. Hossain and Q. Ehsan, "Electrochemical and Solid State Properties of Anion-Doped Poly (pyrrole)", *J. Bangladesh Chem. Soc.*, 2001, **14(2)**, 149-155.
- 9) **A.-N. Chowdhury**, "Polymeric semiconductors : A New Class of Electronic Materials", *Proceedings of the 2nd International Conference on Electrical and Computer Engineering*, Dhaka, Bangladesh, December 26-28, 2002, p.74.
- 10) **A.-N. Chowdhury**, M. A. Yousuf, M. M. Rahman and A. Q. M. Q. Hassan, "Search for New Materials for Viable Application: I. Polyaniline/Silica composite – A New and Highly Active Column Substrate for Alkane Separation", *J. Bangladesh Chem. Soc.*, 2002, **15(1)**, 96-100.
- 11) **A.-N. Chowdhury**, M. A. Yousuf, M. M. Rahman and A. Q. M. Q. Hassan, "*In Situ* Preparation of Polyaniline/Silica Composites and Study of Their

Adsorption Characteristics”, *Indian J. Chem.*, 2002, **41A**, 1562-1568.

- 12) **A.-N. Chowdhury**, J. M. A. Rahman and M. A. Rahman, “Preparation of Organic Polymer/Inorganic Oxide Conductive Composites”, *Indian J. Chem.*, 2002, **41A**, 1789-1794.
- 13) **A.-N. Chowdhury** and J. M. A. Rahman, “Preparation of Electroactive Polyaniline/Silica Composite Film”, *J. Electrochem. Soc. India*, 2002, **51-2**, 66-70.
- 14) A. J. Mahmood, M. M. Islam, M. A. Hasnat and **A.-N. Chowdhury**, “Dye Sensitized Photoelectrochemical Cells. I Indium Tin Oxide/Methylene Blue Electrode System”, *Dhaka Univ. J. Sci.*, 2003 (January), **51(1)**, 39-45.
- 15) **A.-N. Chowdhury** and J. M. A. Rahman, “Search for New Materials for Viable Application: II. Polyaniline/Silica Composite Film as an Active Electrode Material”, *J. Bangladesh Chem. Soc.*, 2003, **16(1)**, 79-84.
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