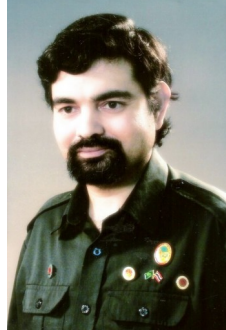


PROFESSIONAL PROFILE
of
DR. AMARTYA KUMAR BHATTACHARYA



1. **Name** : **Prof. Dr. Er. Amartya Kumar Bhattacharya, Esq.**
BCE (Hons.) (Jadavpur University), MTech (Civil) (Indian Institute of Technology, Kharagpur), PhD (Civil) (Indian Institute of Technology, Kharagpur), Cert.MTERM (Asian Institute of Technology, Bangkok), CEng(I), PEng(I), CEng, FASCE (USA), FICE (UK), FIE, FACCE(I), FISH, FIWRS, FIPHE, FIAH, FAE, MIGS, MIGS – Kolkata Chapter, MIGS – Chennai Chapter, MISTE, MAHI, MISCA, MIAHS, MISTAM, MNSFMFP, MIIBE, MICI, MIEES, MCITP, MISRS, MISRMTT, MAGGS, MCSI, MIAENG, MMBSI, MBMSM
- (Founder, Owner and Chief Executive Officer of MultiSpectra Consultants, MultiSpectra Global, MultiSpectra Consultants Asia, MultiSpectra Technologies, MultiSpectra Aqua, MultiSpectra, Inc., MultiSpectra Bangladesh and MultiSpectra Tripura. These eight Companies constitute the Diwan Bahadur Banga Chandra - Dr. Amartya Kumar Bhattacharya Group of Companies.)
- (Founder and President of Indo-Gulf Institute of Arid Regions Engineering, which is a not-for-profit research institution.)
2. **Father's Name** : Late Prof. Arun Chandra Bhattacharya, Esq. of Comilla and Kolkata (University of Calcutta, Subject: Business Administration)
3. **Mother's Name** : Prof. Sheila Bhattacharya (Retired) of Rangoon (now Yangon) and Kolkata (University of Calcutta, Subject: English)
4. **Primary Identity** : Asian Buddhist
5. **Nationality** : Indian, Bangladeshi (Indian Passport-holder but with ancestors hailing from Bangladesh), Estonian e-Residency Digital ID-holder (Issued by Government of Estonia)
6. **Ancestry** : Comilla and Chittagong, Bangladesh
Great great great-grandfather Rai Bahadur Jinendra Bhadra Bhattacharya,

Esq. of Comilla (Scholar)
Great great-grandfather Rai Bahadur Kumar Chandra Bhattacharya,
Agramahapandita, Esq. of Comilla (Scholar)
Great-grandfather Diwan Bahadur Banga Chandra Bhattacharya, Esq. of
Tripura State (Scholar, Author: Buddhist Civilisation in Asia) (Tripura
was a Princely State when the British ruled India.)
Grandfather Rai Bahadur Shaheed Jitendra Chandra Bhattacharya, Esq. of
Comilla (Social Reformer, Scholar)
Great-uncle Shaheed Hemendra Chandra Bhattacharya, INA, Esq. of
Comilla and of Rangoon (now Yangon) (Social Reformer, Scholar)
Maternal Grandfather Prof. Manindra Nath Lahiri, Esq. of Rangoon (now
Yangon) (Scholar)
Maternal Great-uncle Prof. Prabodh Chandra Bagchi, Esq. of Shantiniketan,
Former Vice Chancellor of Vishwa Bharati (Scholar)
Maternal Uncle Major General Dhruvabrata Lahiri, Esq.

(Rai Bahadur Kumar Chandra Bhattacharya, Agramahapandita, and Diwan
Bahadur Banga Chandra Bhattacharya established the Buddhist Peoples'
Organisation at Chittagong in 1915)

7. **Date of Birth** : 28th February, 1967
8. **Age (in completed years)** : 52
9. **Address** : Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India.
Phone:+91-33-2463-4634
10. **Official Designation** : Chairman and Managing Director,
MultiSpectra Consultants, (UAN WB10D0001890)
Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India;

and

Chairman and Managing Director,
MultiSpectra Global, (UAN WB10D0011100)
Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India;

and

Chairman and Managing Director,
MultiSpectra Consultants Asia, (UAN WB10D0002852)
Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India;

and

Chairman and Managing Director,
MultiSpectra Technologies, (UAN WB10D0011153)
Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India;

and

Chairman and Managing Director,
MultiSpectra Aqua, (UAN WB10D0011725)
Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India;

and

President,
Indo-Gulf Institute of Arid Regions Engineering,
Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India;

and

Visiting Professor,
Department of Civil Engineering,
University of Peradeniya,
Galaha Road,
Peradeniya 20400, Sri Lanka;

and

Honorary Professor,
Centre for Water Engineering and Management,
Central University of Jharkhand,
Brambe, Ranchi - 834 205,
Jharkhand, India;

and

Professor Emeritus,
Department of Civil Engineering,
Indian Institute of Engineering Science and Technology, Shibpur
Howrah – 711 103,
West Bengal, India;

and

Member, Task Force,
European Innovation Partnership on Water,
Water Unit ENV.C1, DG Environment,
European Commission,
Brussels 1049, Belgium.

MultiSpectra Consultants is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0001890.

MultiSpectra Global, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0011100.

MultiSpectra Consultants Asia, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0002852.

MultiSpectra Technologies, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0011153.

MultiSpectra Aqua, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0011725.

MultiSpectra, Inc., MultiSpectra Bangladesh and MultiSpectra Tripura are wholly-owned subsidiaries of MultiSpectra Consultants.

MultiSpectra Consultants, MultiSpectra Global, MultiSpectra Consultants Asia, MultiSpectra Technologies, MultiSpectra Aqua, MultiSpectra, Inc., MultiSpectra Bangladesh and MultiSpectra Tripura constitute the Diwan Bahadur Banga Chandra - Dr. Amartya Kumar Bhattacharya Group of Companies.

MultiSpectra Consultants bears a ZED ID of ZEDQCI396941 with the Ministry of Commerce and Industry, Government of India.

MultiSpectra Consultants has a Permanent Account Number (PAN) of ADTPB5006B and a Tax Deduction and Collection Account Number (TAN) of CALA23411D with the Income Tax Department, Government of India.

MultiSpectra Consultants has a Goods and Services Tax Number (GSTIN) of 19ADTPB5006B1ZW with the Central Board of Indirect Taxes and Customs, Department of Revenue, Ministry of Finance, Government of India.

MultiSpectra Consultants is a registered Training Partner of the National Skill Development Corporation, Ministry of Skill Development and Entrepreneurship, Government of India.

MultiSpectra Consultants has been accorded the status of a Recognised Startup by the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India.

MultiSpectra Consultants is registered with the Micro, Small and Medium Enterprises Department, Government of Odisha, India.

MultiSpectra Consultants is registered as an Offshore Company with Government of United Arab Emirates.

MultiSpectra Consultants is registered with the Ministry of Industry, Government

of Nepal, under Company Category 0200.

MultiSpectra Consultants is a Member of the Startup Europe Partnership (SEP).

MultiSpectra Consultants is a Member of the Startup Europe India Network (SEU-IN).

MultiSpectra Consultants is a Member of Startup Lithuania, Startup Canada and Startup Thailand.

MultiSpectra Consultants is a Member of the Open Invention Network and the LOT Network.

MultiSpectra Consultants is a Member of the World Intellectual Property Organization and is enlisted in the database of experts in WIPO (World Intellectual Property Organization) GREEN.

MultiSpectra Consultants is a Member of the Indian Institute of Management Kozhikode Laboratory for Innovation Venturing and Entrepreneurship (IIMK LIVE).

MultiSpectra Consultants is a Member of the India Brand Equity Foundation.

MultiSpectra Consultants is a Patron Member of the Confederation of Micro, Small and Medium Enterprises, Federation of Indian Chambers of Commerce and Industry.

MultiSpectra Consultants is a Member of the National Association of Software and Services Companies (NASSCOM).

MultiSpectra Consultants is a Member of the Association of Micro, Small and Medium Enterprises in Information Technology (AIM-IT).

MultiSpectra Consultants is a Member of Laghu Udyog Bharati.

MultiSpectra Consultants is a Member of the Federation of Small and Medium Industries (FOSMI).

MultiSpectra Consultants is the recipient of a Certificate of Appreciation from the Indian Institute of Management Calcutta Innovation Park and the Department of Science and Technology, Government of India, for being one of the winning startups in the 'SMART FIFTY 50 Solutions to Transform India' contest.

MultiSpectra Consultants is the recipient of two awards, one given by Amazon Web Services and the other given by IBM, for innovation in engineering.

MultiSpectra Consultants is an Affiliate of Microsoft, Google, Adobe, Amazon, Corel, Oracle, IBM, Bentley Systems, Cisco, Citrix, WinRAR, Aqua-Aero Watersystems BV and other global companies.

Dr. Amartya Kumar Bhattacharya is a registered Consultant to the National Skill Development Corporation, Ministry of Skill Development and Entrepreneurship, Government of India.

Dr. Amartya Kumar Bhattacharya is registered as a Mentor in the Indian Institute of Management Calcutta Innovation Park, in NSRCEL, Indian Institute of Management Bangalore, and in the Special Interest Group on "Innovation and

Entrepreneurship" of the Computer Society of India.

Dr. Amartya Kumar Bhattacharya is a registered Consultant to MSME (Micro, Small and Medium Enterprises) Helpline.

Dr. Amartya Kumar Bhattacharya is a Mentor to the Startup Europe Partnership (SEP).

Dr. Amartya Kumar Bhattacharya is an Ambassador of the Startup Europe India Network (SEU-IN).

Dr. Amartya Kumar Bhattacharya is an Honorary Advisor to the Engineering Council of India, to the Construction Industry Development Council and to the Quality Council of India.

Dr. Amartya Kumar Bhattacharya is empanelled as an Expert with the All India Council for Technical Education.

Dr. Amartya Kumar Bhattacharya is registered as a Professional with msmemtor.in with Code Number 1026406.

11. Contact Information

: Head Office : Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India.

MultiSpectra ICreate Centre :
Mahabodhi Bhavan Annexe,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India.

Nepal Office : MultiSpectra House,
Jawalakhel, Lalitpur,
GPO Box: 2513,
Kathmandu, Nepal.

Bangalore Office : C/o Association of Consulting Civil Engineers (India)
A-21, A Block, 2nd Floor, Brigade MM Industrial Complex,
K.R. Road, Near Yediyar Circle,
Bangalore - 560 070,
Karnataka, India.

Phone :+91-33-2463-4634 (Kolkata), +91-80- 2677-0365 (Bangalore)

Mobile : + 91-8902494161

Skype : dramartyakumar

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multispectraconsultants@yahoo.com
vp-east@acce.in

Websites : <https://www.multispectraconsultants.com>
<http://tinyurl.com/MultiSpectraGlobal>

<http://tinyurl.com/MultiSpectraBrochure>
<http://tinyurl.com/MultiSpectraEdge>
<http://tinyurl.com/MultiSpectraSpark>
<http://tinyurl.com/MultiSpectraonJustdial>
<http://tinyurl.com/MultiSpectraonSulekhaBusiness>
<http://tinyurl.com/DrAmartyaKumar>
<http://tinyurl.com/DrAmartyaKumarBhattacharya>
<https://www.linkedin.com/in/dramartyakumarbhattacharya>
<https://www.facebook.com/amartyakumar>
<https://www.facebook.com/MultiSpectraConsultants>
<https://dramartyakumarbhattacharya.branded.me>
<https://plus.google.com/+AmartyaKumarBhattacharya>
<https://dramartyakumarbhattacharya.wordpress.com>
<https://www.pinterest.com/dramartyakumar>
<http://dramartyakumarbhattacharya.weebly.com>
<https://vk.com/dramartyakumarbhattacharya>
<https://medium.com/@dramartyakumar>
https://www.researchgate.net/profile/Amartya_Bhattacharya
<https://www.mendeley.com/profiles/dr-amartya-kumar-bhattacharya>
<https://www.f6s.com/multispectraconsultants>
<https://www.f6s.com/dr.amartyakumarbhattacharya>
<https://angel.co/dr-amartya-kumar-bhattacharya>
<https://vimeo.com/dramartyakumar>
<https://soundcloud.com/dramartyakumar>
<http://startupthailand.org/listing/multispectra-consultants>
<http://www.startuplithuania.lt/en/startups/multispectra-consultants/670>
<https://goo.gl/maps/mmprPyMabkt>
<https://wa.me/918902494161>
<https://wiseintro.co/dramartyakumarbhattacharya>
<http://www.acce.in>

12. **Gender** : Male
13. **Number of Dependents** : Nil
14. **Religion** : Buddhist (by Birth)
 Chairman Emeritus and Director General, Bhattacharya International Buddhist Foundation (Established as Buddhist Peoples' Organisation at Chittagong by Rai Bahadur Kumar Chandra Bhattacharya and Diwan Bahadur Banga Chandra Bhattacharya in 1915);
 Patron, South Kolkata Buddha Temple, Kavi Bharati Sarani (formerly Lake Road), Kolkata - 700029, West Bengal, India;
 Conservative and puritan, non-smoker and non-drinker;
 Strongly influenced by Christianity, Judaism and Islam.
15. **Philanthropy** : Instituted the Rai Bahadur Jinendra Bhadra - Dr. Amartya Kumar Bhattacharya Award for Excellence in Civil Engineering Research;
 Instituted the Rai Bahadur Kumar Chandra - Dr. Amartya Kumar Bhattacharya Award for Excellence in the Business of Civil Engineering;
 Instituted the Diwan Bahadur Banga Chandra - Dr. Amartya Kumar Bhattacharya Award for best Summer Intern at MultiSpectra Consultants;
 Instituted the Rai Bahadur Shaheed Jitendra Chandra - Dr. Amartya Kumar Bhattacharya Award for Excellence in Research (in any field of Engineering, Science and Technology other than Civil Engineering);
 Instituted the Shaheed Hemendra Chandra - Dr. Amartya Kumar Bhattacharya Peace Prize;

Instituted the Prof. Arun Chandra - Dr. Amartya Kumar Bhattacharya Award for Cultural Achievement (in any field of Culture);
Instituted the Prof. Manindra Nath Lahiri - Dr. Amartya Kumar Bhattacharya Award for Excellence in Design (in any field of Engineering and Technology);
Instituted the Prof. Prabodh Chandra Bagchi - Dr. Amartya Kumar Bhattacharya Award for best Open Intern at MultiSpectra Consultants in a Calender Year;
Instituted the Major General Dhrubabrata Lahiri - Dr. Amartya Kumar Bhattacharya Award for Valour.

The Winners of these Awards in Different Years may be found in the website of MultiSpectra Consultants, which is,
<https://www.multispectraconsultants.com>.

16. Executive Summary

I am the Chairman and Managing Director of MultiSpectra Consultants, MultiSpectra Global, MultiSpectra Consultants Asia, MultiSpectra Technologies, MultiSpectra Aqua, MultiSpectra, Inc., MultiSpectra Bangladesh and MultiSpectra Tripura. MultiSpectra Consultants, MultiSpectra Global, MultiSpectra Consultants Asia, MultiSpectra Technologies, MultiSpectra Aqua, MultiSpectra, Inc., MultiSpectra Bangladesh and MultiSpectra Tripura constitute the Diwan Bahadur Banga Chandra - Dr. Amartya Kumar Bhattacharya Group of Companies. My work profile includes Civil Engineering consultancy, research and teaching. I am Vice President (East) of the Association of Consulting Civil Engineers (India). I am also Past Vice President (East) (2001 - 2005) of the Association of Consulting Civil Engineers (India). I am also a Visiting Professor of Civil Engineering at the University of Peradeniya, Sri Lanka, an Honorary Professor of Water Engineering and Management at the Central University of Jharkhand, Ranchi, Jharkhand, India, and a Professor Emeritus of Civil Engineering at the Indian Institute of Engineering Science and Technology, Shibpur, Howrah, West Bengal, India.

I am a Chartered Engineer and have numerous professional memberships.

My Fellowships are FASCE (USA), FICE (UK), FIE, FACCE(I), FISH, FIWRS, FIPHE, FIAH and FAE.

I have travelled abroad widely for professional and academic purposes.

I have been awarded the Hem Prabha - S N Gupta Gold Medal by The Institution of Engineers (India).

I have numerous publications to my credit in the form of international and national journal and conference papers, monographs in books and white papers.

I have supervised several Ph.D. and M.E. Theses and have completed a number of sponsored research and other Civil Engineering projects.

I specialise in Hydraulics, Hydrology, Water Resources Engineering, Geotechnical Engineering and Civil Engineering Project Management.

The website of MultiSpectra Consultants is
<https://www.multispectraconsultants.com>

My Academia.edu website is <https://tinyurl.com/MultiSpectraGlobal>

My LinkedIn website is <https://www.linkedin.com/in/dramartyakumarbhattacharya>

My Facebook website is <https://www.facebook.com/amartyakumar>

My branded.me website is <https://dramartyakumarbhattacharya.branded.me>

17. Educational Qualifications :

Certificate/ Degree	Year of Passing	Council/ University/ Institute	Field of Study	Points/ Division/ Class	Percentage of Marks/ Cumulative Grade Point Average
Indian Certificate of Secondary Education (ICSE)	1983 (March)	Council for the Indian School Certificate Examinations, New Delhi, India. (School : Don Bosco School, Park Circus, Calcutta, India.)	General	8 Points, 1st Division	87.40 %
Indian School Certificate (ISC)	1985 (March)	Council for the Indian School Certificate Examinations, New Delhi, India. (School : Don Bosco School, Park Circus, Calcutta, India.)	Science	7 Points, 1st Division	85.50%
Bachelor of Civil Engineering (BCE)	1989 (June)	Jadavpur University, Calcutta, India.	Civil Engineering	1st Class with Honours	77.17%
Master of Technology (in Engineering) (MTech)	1990 (December)	Indian Institute of Technology, Kharagpur, India.	Civil Engineering (Specialisation : Water Resources Engineering)	1st Class	Cumulative Grade Point Average 8.82 out of a maximum possible score of 10
Doctor of Philosophy (in Engineering) (PhD)	(Thesis submitted in March 1995, Thesis defence Seminar and Viva-voce in September 1995, Provisional PhD Certificate given in September	Indian Institute of Technology, Kharagpur, India.	Civil Engineering (Hydraulics)	1st Class	

	1995, Convocation and formal degree conferment in June 1996)				
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Graduate Aptitude Test in Engineering :
 Year taken : 1989
 Percentile Score : 96.44

MTech Thesis Title : A Socio-Economic Analysis of Alternate Schemes for Flood Control.
 Supervisor : Prof. M.N. Rao
 Professor,
 Department of Civil Engineering,
 Indian Institute of Technology,
 Kharagpur,
 India.
 (now retired)

PhD Thesis Title : Mathematical Model of Flow in a Meandering Channel.
 Brief Abstract : The research work consisted of formulation of a mathematical model for the three-dimensional distribution of all three velocity components and the pressure for an open-channel, sinusoidal in plan and having simple as well as compound (with adjoining flood-plains) cross-sections and their validation with experimental results after conducting experiments. The mathematical model proved to be very satisfactory.

Supervisor : Dr. S.K. Kar
 Associate Professor,
 Department of Civil Engineering,
 Indian Institute of Technology,
 Kharagpur,
 India.
 (became Professor in January 1997, now retired)

18. Core Areas of Research : Fluid Mechanics, Hydraulics, Hydrology and Water Resources Engineering.

19. Additional Areas of Research : Geotechnical Engineering, Civil Engineering Project Management, Environmental Engineering, Structural Engineering, Earthquake Engineering, Transportation Engineering.

20. Work Record :

Organisation	Dates	Position Held
Indian Institute of Technology, Kharagpur – 721 302, West Bengal, India.	1st January, 1991 to 15th January, 1995	Research Scholar in Civil Engineering, Department of Civil Engineering

Bengal Engineering College (Deemed University), Howrah – 711 103, West Bengal, India.	16th January, 1995 to 15th January, 1999	Lecturer in Applied Mechanics, Department of Applied Mechanics
Bengal Engineering College (Deemed University), Howrah – 711 103, West Bengal, India.	16th January, 1999 to 15th January, 2004	Senior Lecturer in Applied Mechanics, Department of Applied Mechanics
Bengal Engineering College (Deemed University), Howrah – 711 103, West Bengal, India.	16th January, 2004 to 30th September, 2004	Assistant Professor of Applied Mechanics, Department of Applied Mechanics
Bengal Engineering and Science University, Shibpur, Howrah – 711 103, West Bengal, India.	1st October, 2004 to 15th January, 2007	Assistant Professor of Applied Mechanics, Department of Applied Mechanics
Bengal Engineering and Science University, Shibpur, Howrah – 711 103, West Bengal, India.	16th January, 2007 to 15th January, 2010	Associate Professor of Applied Mechanics, Department of Applied Mechanics
Bengal Engineering and Science University, Shibpur, Howrah – 711 103, West Bengal, India.	16th January, 2010 to 31st January, 2014	Professor of Applied Mechanics, Department of Applied Mechanics (Took Voluntary Retirement from Service on 31st January, 2014 to devote full professional attention to MultiSpectra Consultants)
MultiSpectra Consultants, (UAN WB10D0001890) Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	1st August, 2009 to 31st January, 2014	Director
MultiSpectra Consultants, (UAN WB10D0001890) Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	1st February, 2014 to 30th June, 2016	Chairman
MultiSpectra Consultants, (UAN WB10D0001890)	1st July, 2016 to	Chairman and Managing Director

Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	present	
University of Peradeniya, Galaha Road, Peradeniya 20400, Sri Lanka.	1st December, 2016 to present	Visiting Professor of Civil Engineering, Department of Civil Engineering
Central University of Jharkhand, Brambe, Ranchi - 834 205, Jharkhand, India.	18th October, 2017 to present	Honorary Professor of Water Engineering and Management, Centre for Water Engineering and Management
MultiSpectra Global, (UAN WB10D0011100) Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	1st January, 2018 to present	Chairman and Managing Director
MultiSpectra Consultants Asia, (UAN WB10D0002852) Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	1st January, 2018 to present	Chairman and Managing Director
MultiSpectra Technologies, (UAN WB10D0011153) Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	1st January, 2018 to present	Chairman and Managing Director
Indian Institute of Engineering Science and Technology, Shibpur, Howrah – 711 103, West Bengal, India.	1st February, 2018 to present	Professor Emeritus of Civil Engineering, Department of Civil Engineering
MultiSpectra Aqua, (UAN WB10D0011725) Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	1st February, 2018 to present	Chairman and Managing Director

Indo-Gulf Institute of Arid Regions Engineering, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.	1st March, 2018 to present	President
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21. Teaching Experience : Served at Bengal Engineering and Science University, Shibpur from 16th January, 1995 to 31st January, 2014
(Job functions : Teaching at both undergraduate and post-graduate levels, conducting and guiding research and undertaking consultancy works);

Assisted in teaching in final semester of Master of Technology and during all semesters of Doctor of Philosophy at Indian Institute of Technology, Kharagpur.

22. Prizes/ Scholarships/ Awards/ Honours Received

:Recipient of two medals, four certificates and five books from Don Bosco School, Park Circus, Calcutta;

Recipient of Institute Scholarship from Indian Institute of Technology, Kharagpur, during Master of Technology and also during Doctor of Philosophy upto joining of Bengal Engineering College (Deemed University) as Lecturer;

Recipient of full Fellowship to attend International Course on “Storm Surges, River Flow and their Combined Effects in Low Lying Coastal Areas – Data Acquisition, Data Processing and Data Analysis” at Asian Institute of Technology, Bangkok, during 14 – 25 February, 1994;

Awarded jointly with Dr. S.K. Kar, the Hem Prabha – S.N. Gupta Medal for 1995 – 96 by The Institution of Engineers (India) for the paper “Characteristics of flow in a deep, strongly meandering channel” which has been published in the Journal of the Institution of Engineers (India), Civil Engineering Division;

Recipient of Travel Grant from the Bundesanstalt für Gewässerkunde, Koblenz, Germany to travel to Europe and back to present paper entitled " Saline water intrusion into coastal aquifers of West Bengal, India " at the International Symposium on Low-lying Coastal Areas - Hydrology and Integrated Coastal Zone Management, Bremerhaven, Germany, 9 - 12 September, 2002;

Has been a Visiting Fellow at the Institut für Hydromechanik und Wasserwirtschaft, Swiss Federal Institute of Technology, Hönggerberg, CH – 8093, Zurich, Switzerland in October, 2002;

Invited by the Department of Geology and Water Resources Management, Pandit Ravi Shankar Shukla University, Raipur, India to deliver the Keynote Address at a Seminar on Interlinking of Rivers, Raipur, 22 March, 2004;

Delivered three Invited Lectures at the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi at the Short Term Training Course on Mathematical Modelling of Groundwater Flow and Mass Transport, 12 November – 9 December, 2004;

Delivered an Invited Lecture at the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi at the Short Term Training Course on Mathematical Models in Hydrogeochemistry: Assessment of Groundwater Quality and Management (Under Department of Science and Technology, Government of India, School of Mathematical Modelling in Earth System Sciences Programme), 19 September – 5 October, 2005;

Delivered an Invited Lecture entitled “Saline water intrusion in coastal aquifers of West and South Asia” at the National University of Singapore, Singapore on 28 September, 2005;

Has been a Visiting Professor on invitation from the Department of Civil Engineering, University of Pisa, Italy from 16 August to 15 October, 2006;

Invited by the WSEAS (World Scientific and Engineering Academy and Society) to submit an Invited Paper for, and organise a special session in, the 4th IASME/WSEAS International Conference on Heat Transfer, Thermal Engineering and Environment, Elounda, Agios Nikolaos, Crete Island, Greece, 21-23 August, 2006;

Invited by the Banha University, Cairo, Egypt to deliver a lecture entitled “Saline water intrusion in coastal aquifers of West Asia and North Africa” at the Banha University, Cairo, Egypt on 17 October, 2006;

Invited by the Royal Scientific Society, Al-Jubaiha, Amman, Jordan to be a Visiting Professor in October, 2006, and deliver a lecture entitled “Saline water intrusion in the coastal region surrounding Aqaba, Jordan” on 23 October, 2006;

Delivered an Invited Lecture entitled “Groundwater depletion and associated land subsidence in Kolkata” at the Indian Institute of Technology Bombay, Mumbai on 5 March, 2007;

Presented an Invited Paper entitled “Land subsidence in Kolkata” at the Workshop on Integrated Water Resources Management, 7-9 March, 2007, Royal Scientific Society, Al-Jubaiha, Amman, Jordan;

Invited by the Organising Committee, National Seminar on Agriculture Development and Rural Drinking Water, to be Co-Chairman of a Technical Session at the Seminar held during 4-5 April, 2007, Bhopal;

Invited by the Department of Civil Engineering, University of Pisa, Italy to be Visiting Professor in October, 2007;

Included in Marquis Who’s Who 2007;

Acted as External Examiner of the Outgoing M.Tech. (Civil Engineering; Specialisation : Hydraulics and Water Resources Engineering) students' Theses and Theses Defence Seminar and Viva-voce at the Indian Institute of Technology, Kharagpur on 7 May, 2008 and on 2 May, 2013;

Delivered an Invited Lecture entitled “Flood forecasting and early warning system” at the Nepal Engineering College, Kathmandu, Nepal on 24 May, 2010;

Member of the Editorial Advisory Board of the Electronic Journal of Geotechnical Engineering;

IAO(International Accreditation Organisation)-Certified Faculty Member;

Delivered an Invited Lecture entitled “Effect of very mild random tremors on saturated sub-surface flow” at the Nepal Engineering College, Kathmandu, Nepal on 28 December, 2012;

Recipient of Certificate of Appreciation from The Institution of Engineers (India) in 2014;

Delivered a Keynote Address on “Saline water intrusion in coastal aquifers of Bangladesh” at the 32nd and 33rd AHI National Seminar on “Water Resources” with a colloquium on ‘Interlinking of Rivers with Special Reference to Andhra Pradesh’ held at Visakhapatnam during 10-11 July, 2015;

Delivered a Keynote Address on “Forensic Civil Engineering” at the International Conference on Forensic Civil Engineering (FCE-2016) held at Nagpur during 21-23 January, 2016;

Delivered a Keynote Address on “Saline water intrusion into coastal aquifers” at the Sixth International Groundwater Conference held at Chennai during 11-13 February, 2016;

Chaired a Technical Session at the Sixth International Groundwater Conference held at Chennai during 11-13 February, 2016;

Recipient of Certificate of Appreciation from Elsevier in 2016;

Delivered an Invited Lecture on “Saline water intrusion into coastal aquifers of the world” at the International Institute of Information Technology, Hyderabad on 4 October, 2016;

Delivered a Keynote Address on seismogeohydraulics at the First Indian National Groundwater Conference held at Hyderabad during 5-7 October, 2016;

Chaired a Technical Session at the First Indian National Groundwater Conference held at Hyderabad during 5-7 October, 2016;

Member, Task Force, European Innovation Partnership on Water, Water Unit ENV.C1, DG Environment, European Commission, Brussels 1049, Belgium;

Included in Rifacimento International Asia Pacific Who’s Who 2017;

Recipient of Certificate of Appreciation from Elsevier in 2017;

Recipient of Certificate of Appreciation from The Institution of Engineers (India) in 2017;

Delivered an Invited Lecture on “Analysis and control of saline water intrusion in coastal areas of the world” at the Centre for Water Engineering and Management, Central University of Jharkhand, Brambe, Ranchi, on 22 November, 2017;

Delivered a Keynote Address on “Saline water intrusion in coastal areas of Asia” at the International Conference on Water and Wastewater Management and Modelling (ICWWMM-2018) held at Ranchi during 16-17 January, 2018;

Co-Chaired a Technical Session at the International Conference on Water and Wastewater Management and Modelling (ICWMM-2018) held at Ranchi during 16-17 January, 2018;

Recipient of Bharat Ratna Dr. Abdul Kalam Gold Medal Award from Global Economic Progress and Research Association in 2018;

Invited to deliver an Invited Lecture on “Saline water intrusion into coastal aquifers of the world” at the University of Peradeniya, Sri Lanka, in 2019.

23. Professional Memberships and Affiliations

: Fellow Member of the Association of Consulting Civil Engineers (India);
Fellow of The Institution of Engineers (India) and ipso facto a Chartered Engineer (India); Individual Member of the International Association of Hydrological Sciences and the United Kingdom Groundwater Forum;
Fellow of the American Society of Civil Engineers;
Fellow of The Institution of Civil Engineers (UK) and ipso facto a Chartered Engineer (UK);
Fellow of the Indian Water Resources Society;
Fellow of The Indian Society for Hydraulics;
Fellow of the Indian Association of Hydrologists;
Fellow of the Institution of Public Health Engineers, India;
Fellow of The Association of Engineers, India;
Professional Engineer (India);
Member, International Association of Engineers;
Member, IAENG (International Association of Engineers) Society of Scientific Computing;
Member, IAENG (International Association of Engineers) Society of Software Engineering;
Member, Indo-German Science Circle, Embassy of Germany, New Delhi;
Life Member of the following : American Society of Civil Engineers – India Section, the Roorkee Hydrology Group, the Association of Hydrologists of India, the Indian Society of Theoretical and Applied Mechanics, the National Society of Fluid Mechanics and Fluid Power, the Asian Society of Civil Engineers, the Indian Science Congress Association, the Indian Society for Technical Education, the Indian Science Writers’ Association, the Indian Geotechnical Society, the Indian Geotechnical Society – Chennai Chapter, the Indian Geotechnical Society – Kolkata Chapter, the Forum of Scientists, Engineers and Technologists, the Indian Society for Rock Mechanics and Tunnelling Technology, the Indian Society of Remote Sensing, the Bangiya Vigyan Parishad (Science Council of Bengal), the Pashchimbanga Vigyan Manch (West Bengal Science Forum), the Computer Society of India, the Calcutta Institute of Theoretical Physics (formerly called the Institute of Theoretical Physics), the Indian Institution of Bridge Engineers, the Indian Concrete Institute, the South Asian Network for Development and Environmental Economics, the Association of Global Ground Water Scientists, the Builders' Association of India, the All India Management Association, the Calcutta Management Association, the Mozilla Developer Network, The Water Network, WIPO (World Intellectual Property Organization) GREEN, the Global Entrepreneurship Network, the MIT (Massachusetts Institute of Technology) Technology Review Global Panel;
Annual Member, The Indus Entrepreneurs, The Indus Entrepreneurs - Delhi-NCR Chapter, India Startup Club, Indian Society for Development and Environment Research.

24. Positions of

Responsibility

in Professional Bodies : Vice President (East) (2015-2019) of the Association of Consulting Civil Engineers (India);
 Member, Governing Council (2015-2019) of the Association of Consulting Civil Engineers (India);
 Member, Advisory Board (2015-2019) for the Bulletin of the Association of Consulting Civil Engineers (India);
 Member, Bye-law Committee of the Association of Consulting Civil Engineers (India);
 Member, Vision Documentation Committee of the Association of Consulting Civil Engineers (India);
 Resource Person, Student Mentoring Programme of the Association of Consulting Civil Engineers (India);
 Member, Statistics in Hydrology Working Group (STAHY-WG) of the International Association of Hydrological Sciences;
 Member, Special Interest Group on "Innovation and Entrepreneurship" of the Computer Society of India;
 Member, Startup Entrepreneurship Awards Committee of the Special Interest Group on "Innovation and Entrepreneurship" of the Computer Society of India;
 Former Vice President (East) (2001-2005) of the Association of Consulting Civil Engineers (India);
 Former Member, Governing Council (2001-2005) of the Association of Consulting Civil Engineers (India);
 Former Member, Advisory Board (2001-2005) for the Bulletin of the Association of Consulting Civil Engineers (India);
 Member of the Executive Committee of the American Society of Civil Engineers – India Section;
 Member of the Civil Engineering Divisional Sub-Committee of the West Bengal State Centre, The Institution of Engineers (India);
 Member, Board for Registration of Consulting Civil Engineers Committee of the Association of Consulting Civil Engineers (India);
 Member, National Awards Committee of the Association of Consulting Civil Engineers (India);
 Member, Executive Committee, Indian Society for Technical Education, Bengal Engineering and Science University, Shibpur Chapter;
 Member, WSEAS (World Scientific and Engineering Academy and Society) Working Group on Energy, Environment, Environmental Hydrology, Ecosystems and Sustainable Development;
 Member, Technical Committee on "Guidelines for Selection of Appropriate Water Proofing Material and System" of the Indian Concrete Institute.

25. Short Courses Participated in :

- (a) Name of Course : International Course on “Storm Surges, River Flow and their Combined Effects in Low Lying Coastal Areas – Data Acquisition, Data Processing and Data Analysis”.
- Venue : Asian Institute of Technology, Bangkok, Thailand.
- Duration : 14 – 25 February, 1994.
- Course conducted by : The German National Committee for the International Hydrological Programme of United Nations Educational, Scientific And Cultural Organisation and the Operational Hydrology Programme of World Meteorological Organisation in cooperation with the Division of Water Resources Engineering and the Irrigation Engineering and Management Programme of the Asian Institute of Technology.

- (b) Name of Course : Short Term Course on “Natural Resource Monitoring using Remote Sensing”.
Venue : Indian Institute of Technology, Kanpur.
Duration : 5 – 12 June, 1995.
Course conducted by : Department of Civil Engineering,
Indian Institute of Technology, Kanpur.
- (c) Name of Course : Short Term Course on “Fundamentals and Modelling Aspects of Turbulent Flow”.
Venue : Indian Institute of Technology, Kanpur.
Duration : 4 – 9 December, 1995.
Course conducted by : Department of Mechanical Engineering,
Indian Institute of Technology, Kanpur.
- (d) Name of Course : Winter Short Term Course on “Sustainable Development through Integrated Water Resources Planning and Management”.
Venue : Indian Institute of Technology, Kharagpur.
Duration : 28 December, 1998 to 1 January, 1999.
Course conducted by : Department of Civil Engineering,
Indian Institute of Technology, Kharagpur.
- (e) Name of Course : Asian Institute of Technology/ Danish International Development Agency MTERM Training Course on “Modelling Techniques in Water Resources Management”.
Venue : Asian Institute of Technology, Bangkok, Thailand.
Duration : 6 – 17 August, 2001.
Course conducted by : Regional Environmental Management Center,
School of Civil Engineering,
Asian Institute of Technology.
- (f) Name of Course : International Training Workshop on “Environmental Impact Assessment with special regard to Water Resources Development”.
Venue : Asian Institute of Technology, Bangkok, Thailand.
Duration : 12 –16 November, 2001.
Course conducted by : The German National Committee for the International Hydrological Programme of United Nations Educational, Scientific And Cultural Organisation and the Operational Hydrology Programme of World Meteorological Organisation.
- Presented a paper entitled “Geology and utilisation of ground water in Calcutta, India with a special reference to ground water depletion” at the International Training Workshop.
- (g) Name of Course : Short Term Course on “Environmental Science for Engineers and Scientists”.
Venue : Bengal Engineering College (Deemed University), Howrah.
Duration : 1 –5 June, 2004.

Course conducted by : School of Community Science and Technology,
Bengal Engineering College (Deemed University).

Delivered lectures entitled “Saline Water Intrusion into Coastal Aquifers of Midnapur, West Bengal, India and Remedial Measures” and “Perspectives on Artificial Groundwater Recharge” at the Short-Term Course.

(h) Name of Course : International Training Course on “Hydrological Droughts and Low Flows”.

Venue : Business and Advanced Technology Centre, University Technology Malaysia,
Kuala Lumpur, Malaysia.

Duration : 26-30 September, 2005.

Course conducted by : The German National Committee for the International Hydrological Programme of United Nations Educational, Scientific and Cultural Organisation and the Hydrology and Water Resources Programme of World Meteorological Organisation and the Regional Humid Tropics Hydrology and Water Resources Centre (HTC) for Asia and the Pacific, Kuala Lumpur.

Presented a paper entitled “Saline water intrusion in coastal aquifers of West Asia” at the International Training Course.

26. Papers :

(a) Journals :

- J.1. Paper entitled “Operations research in Civil Engineering” by **A.K.Bhattacharya** has been published in The Civil Engineer, Vol. XXVI, Spring '91.
- J.2. Paper entitled “Variation of design flood depending on inclusion or non-inclusion of upstream factors in economic analysis of flood control reservoir schemes” by **A.K.Bhattacharya** has been published in Indian Journal of Power and River Valley Development, Vol. XLI, No. 9, September, 1991.
- J.3. Paper entitled “Redistribution of longitudinal velocity in open channels curvilinear in plan” by **A.K.Bhattacharya** and S.K.Kar has been published in The Civil Engineer (Journal of the Civil Engineering Society, Indian Institute of Technology, Kharagpur), Vol. XXVII, Spring '92. Pages 1 – 4.
- J.4. Paper entitled “Evaporation from reservoirs and canals” by **A.K.Bhattacharya** has been published in ASCE News (of the American Society of Civil Engineers – India Section), Vol. VI, No. 5, September – October, 1992.
- J.5. Paper entitled “Elements of analysis of fluid mechanics problem by perturbation series method” by **A.K.Bhattacharya** and S.K.Kar has been published in The Civil Engineer, Vol. XXVIII, Spring 1993.
- J.6. Paper entitled “On the discharge in compound channels” by **A.K.Bhattacharya** and S.K.Kar has been published in the Golden Jubilee Commemorative Volume, River Research Institute, Government of West Bengal, February, 1994.
- J.7. Discussion on paper “Hydrodynamic behaviour of compound rectangular open channels” by D. Naot, I.Nezu and H.Nakagawa has been published in Journal of Hydraulic Engineering, American Society of Civil Engineers, Vol. 120, No. 7, July, 1994. Discussers : **A.K.Bhattacharya** and S.K. Kar. Page 892.
- J.8. Article entitled “Tidal power in the Sunderbans” by **A.K.Bhattacharya** and S.K.Kar has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol. VIII, No. 4, July – August, 1994.

- J.9. Paper entitled “On the two-dimensional Navier – Stokes equations” by **A.K.Bhattacharya** and S.K.Kar has been published in The Civil Engineer, Vol. XXIX, Spring '94. Pages 20 – 21.
- J.10. Paper entitled “Boundary shear stress in meandering channel with one-sided flood plain” by A.K. Das, S.K.Kar and **A.K.Bhattacharya** has been published in Indian Journal of Power and River Valley Development, Vol. XLI, Nos. 1 & 2, January – February, 1995. Pages 15 – 18.
- J.11. Paper entitled “The finite difference method in a free surface flow situation – A case study” by **A.K.Bhattacharya** and S.K.Kar has been published in The Civil Engineer, Vol. XXX, Spring '95.
- J.12. Paper entitled “Characteristics of flow in a deep strongly - meandering channel” by S.K.Kar and **A.K.Bhattacharya** has been published in the Journal of the Institution of Engineers (India), Civil Engineering Division, Vol. 76, May, 1995. Pages 15 – 18. .12.
- J.13. Paper entitled “A model for the stage - discharge relationship in compound open channels” by **A.K.Bhattacharya** and S.K.Kar has been published in the ISH Journal of Hydraulic Engineering (of the Indian Society for Hydraulics), Vol. 1, No. 2, September, 1995. Pages 59 – 62.
- J.14. Discussion on paper entitled “Application of slope-area method for discharge estimation” by S.V. Chitale has been published in the ISH Journal of Hydraulic Engineering, Vol. 1, No. 2, September, 1995. Discussors : **A.K.Bhattacharya** and S.K.Kar.
- J.15. Paper entitled “Some common defects of concrete and their control” by B.Bhattacharya and **A.K.Bhattacharya** has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol. IX, No. 6, November – December, 1995. Pages 4 – 6.
- J.16. Paper entitled “Distribution of vertical velocity in a sinuous open channel” by **A.K.Bhattacharya** and S.K.Kar has been published in the ISH Journal of Hydraulic Engineering, Vol. 2, No. 1, March, 1996. Pages 59 – 62.
- J.17. Closure to discussion on paper entitled “Distribution of vertical velocity in a sinuous open channel” by **A.K.Bhattacharya** and S.K.Kar has been published in the ISH Journal of Hydraulic Engineering, Vol. 2, No. 2, September, 1996. Pages 62 – 63.
- J.18. Paper entitled “On some aspects of concrete structures” by S.Banerjee and **A.K.Bhattacharya** has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol. XI, No. 2, March – April, 1997. Pages 3 – 4.
- J.19. Paper entitled “A study of instantaneous breaching of dams” by S.Das, P.K.Lai, **A.K.Bhattacharya**, N.Nandi and K.K.Bhar has been published in River Behaviour and Training, Vol. 25, 1998.
- J.20. Paper entitled " Low-head hydro-electricity development" by K.Debnath and **A.K.Bhattacharya** has been published in River Behaviour and Control, Vol. 26, 1999. Pages 56 – 57.
- J.21. Paper entitled “A study of alternative schemes for flood control” by **A.K.Bhattacharya** has been published in Indian Journal of Power and River Valley Development, Vol. 50, Nos. 3 & 4, March – April, 2000. Pages 83 – 86.
- J.22. Paper entitled “A competitive strategy for small consulting firms” by **A.K.Bhattacharya** has been published in the Bulletin of the Association of Consulting Civil Engineers (India), Vol. 14, No. 2, April – June, 2001.
- J.23. Paper entitled “A review of methods of reduction of local scour around bridge piers” by **A.K.Bhattacharya** and K.Debnath has been published in Indian Highways, September, 2001. Pages 29 – 31.
- J.24. Paper entitled “Cable- stayed bridges – Aspects of design and construction” by **A.K.Bhattacharya** has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol. XIX, No. 6, November –December, 2001. Pages 14 – 15.
- J.25. Paper entitled “ Bending analysis of isotropic plates using a sixteen-noded subparametric element” by M.C.Manna, S.Haldar and **A.K.Bhattacharya** has been published in the International Journal of Applied Mechanics and Engineering, Vol. 7, No. 4, 2002. Pages 1279 - 1290.
- J.26. Paper entitled “Interbasin transfer of water for development – in West Bengal perspective” by P.K. Basu, **A.K.Bhattacharya**, K.Debnath and N.Nandi has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol. XX, No. 1, January – February, 2002. Pages 8 – 12.
- J.27. Discussion on paper entitled “Flow interaction of meandering rivers with flood plains” by K.C. Patra and S.K.Kar has been published in the Journal of Hydraulic Engineering, American Society of Civil Engineers, Vol. 128, No. 2, February, 2002. Discussers : **A.K.Bhattacharya** and K. Debnath. Page 245.

- J.28. Paper entitled “Study of ground water condition of Howrah district of West Bengal” by A. Banerjee, A.Dasgupta, **A.K.Bhattacharya** and N.Nandi has been published in the Journal of the Society of Civil Engineers, 2001 – 2002. Pages 18 – 21.
- J.29. Paper entitled " On groundwater effects on Calcutta roads" by S.Ray and **A.K.Bhattacharya** has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXVI, No.1, January-February, 2003. Pages 12-13.
- J.30. Paper entitled "Groundwater flow beneath a sheetpile analysed using six-noded triangular finite elements" by M.C.Manna, **A.K.Bhattacharya**, S.Choudhury and S.Maji has been published the Journal of the Civil Engineering Division, The Institution of Engineers (India), Vol 84, August 2003. Pages 121 – 129.
- J.31. Paper entitled "Reduction of local scour around non-cylindrical bridge pier at large angles of attack using collar" by **A.K.Bhattacharya**, S.Basack, and G.Bhattacharya has been published in the ISH Journal of Hydraulic Engineering, Vol.9, No.2, September, 2003. Pages 1 – 10.
- J.32. Paper entitled " Case studies of subsidence in a certain localities of south Kolkata" by **A.K.Bhattacharya**, S.Basack, and M.N.Patra has been published in the Bulletin of the Association of Consulting Civil Engineers (India), Vol. 3, No. 2, October – December, 2003. Pages 15-17.
- J.33. Paper entitled " Some suggestions regarding design of pile foundations supporting offshore and onshore structures" by S.Basack, **A.K.Bhattacharya** and P.Maity has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXVI, No.6, November-December, 2003. Pages 5-6.
- J.34. Paper entitled " A case study of subsidence in a certain locality of south Kolkata" by **A.K.Bhattacharya**, S.Basack, and M.N.Patra has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXVII, No.2, February, 2004. Pages 7-10.
- J.35. Paper entitled “ Design of offshore structures – An overview” by S.Basack and **A.K.Bhattacharya** has been published in the Volume prepared on occasion of the Bengal Engineering College (Deemed University) Reunion, February, 2004. Pages 38-39.
- J.36. Paper entitled “Groundwater extraction in the United Arab Emirates under the constraint of saline water intrusion” by **A.K.Bhattacharya**, S.Basack and P.Maity has been published in the Journal of Environmental Hydrology, Vol. 12, Paper 6, April, 2004. Pages 1-5.
- J.37. Paper entitled “Velocity and discharge distribution in meandering compound channels” by K.C.Patra, S.K.Kar and **A.K.Bhattacharya** has been published in the Journal of Hydraulic Engineering, American Society of Civil Engineers, Vol. 130, No. 5, May, 2004. Pages 398-411.
- J.38. Closure to discussion on paper entitled " A case study of subsidence in a certain locality of south Kolkata" by **A.K.Bhattacharya**, S.Basack, and M.N.Patra has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXVII, No.5, May, 2004. Page 3.
- J.39. Paper entitled " Aspects of construction for hydro-electric power projects" by **A.K.Bhattacharya**, been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXVII, No.5, May, 2004. Pages 4-5.
- J.40. Paper entitled " Utilization of fly ash in rural road construction in India and its cost effectiveness" by S.Basack, **A.K.Bhattacharya** and L.K.Paira has been published in the Electronic Journal of Geotechnical Engineering, Volume 9, 2004 –Bundle D, ejs paper 2004-0436.
- J.41. Paper entitled "Transportation by water in Kolkata" by **A.K.Bhattacharya** and K. Debnath has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXVIII, No.8, August, 2004. Page 6.
- J.42. Paper entitled “Geological controls on saline water intrusion into the aquifers of the east coast of India” by **A.K.Bhattacharya**, S.Basack, P.Maity and L.K.Paira has been published in the Journal of Environmental Hydrology, Vol. 12, Paper 21, November, 2004. Pages 1-8. { This paper has been cited in CSA Illumina in 2005. }
- J.43. Paper entitled “Land subsidence in Calcutta under the effect of hydrogeological conditions and over-extraction of groundwater” by **A.K.Bhattacharya**, S.Basack and M.N.Patra has been published in the Electronic Journal of Geotechnical Engineering, Volume 9, 2004 –Bundle E, ejs paper 2004-0457.
- J.44. Paper entitled "Regression analysis of some soil parameters with particular reference to a rural road construction project" by S.Basack, **A.K.Bhattacharya** and L.K.Paira has been published in

- Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.I, No.4, November-December, 2004. Pages 8-13.
- J.45. Paper entitled “Hydrogeology of the Bay of Bengal coast of India with special emphasis on saline water intrusion” by **A.K.Bhattacharya**, S.Basack, P.Maity, L.K.Paira, S.Sarkar and S.C. Maji has been published in the Electronic Journal of Geotechnical Engineering, Volume 9, 2004 –Bundle F, ejpg paper 2004-0477.
- J.46. Paper entitled “Arresting project slippage in developing countries – a state-of-the-art review” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in KINDLER, Journal of the National Institute of Management Calcutta, Vol V, No.1, January-June 2005. Pages 51-58.
- J.47. Paper entitled “ Arresting slippage in water resources and other infrastructural projects ” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in the Volume prepared on occasion of the Bengal Engineering and Science University, Shibpur, Reunion, February, 2005. Pages 30-33.
- J.48. Paper entitled "Success in engineering management – a methodical approach" by D.Kar, **A.K.Bhattacharya** and S.Basack has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXIX, No.4, June-July, 2005. Pages 6-8.
- J.49. Paper entitled “Fluid rheological properties and flow characteristics of saline water in a granular porous medium” by **A.K.Bhattacharya**, S.Basack and P.Mohapatra has been published in the Journal of Technology, Vol. XXXVIII, No.2, July, 2005. Pages 1-6.
- J.50. Paper (Technical Note) entitled “Groundwater flow in a weakly-random hydraulic conductivity field” by **A.K.Bhattacharya** has been published in the Electronic Journal of Geotechnical Engineering, Volume 10, 2005 – Bundle E, ejpg paper 2005-0582.
- J.51. Paper entitled “A streamlined approach to effective management of engineering projects ” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in The Vision, Journal of Management and Allied Sciences, Vol. 1, No. 4, October-December, 2005. Pages 136-145.
- J.52. Paper entitled “An overview of Indian procurement system with special reference to water resources and infrastructure projects” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in The Vision, Journal of Management and Allied Sciences, Vol.II,No.1, January-March, 2006. Pages 38-39.
- J.53. Paper entitled “Arresting slippage in water resources and other infrastructural projects” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in the Volume prepared on occasion of the Bengal Engineering and Science University, Shibpur, Reunion, February, 2006. Pages 13-15.
- J.54. Paper entitled "The water resources model SIMGRO" by **A.K.Bhattacharya** has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, Vol.XXX, No.4, June-July, 2006. Page 8.
- J.55. Paper entitled “Salinity intrusion and its management aspects in Bangladesh” by M.M.Rahman and **A.K.Bhattacharya** has been published in the Journal of Environmental Hydrology, Vol.14, Paper 14, October, 2006. Pages 1-8.
- J.56. Paper entitled “Management of water resources in urban India” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in The Vision, Journal of Management and Allied Sciences.
- J.57. Paper entitled “Quality control in construction” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in the Volume prepared on occasion of the Bengal Engineering and Science University, Shibpur, Reunion, April, 2007. Pages 8-11.
- J.58. Paper entitled “Land subsidence in Salt Lake City and adjoining area of Kolkata” by **A.K.Bhattacharya** and M.N.Patra has been published in The Icfai Journal of Earth Sciences, Vol. 1, No.2, July, 2007. Pages 75-86.
- J.59. Paper entitled “Dry weather groundwater flow into rivers in using BILAN” by **A.K.Bhattacharya**, S.Basack, L.Kašpárek and O.Novický has been published in River Behaviour and Control, Vol. 28, 2007-2008. Pages 23-28.
- J.60. Paper entitled “Darcy and Forchheimer flow of groundwater through wells and associated land subsidence” by S.Basack and **A.K.Bhattacharya** has been published in River Behaviour and Control, Vol. 28, 2007-2008. Pages 39-51.
- J.61. Paper entitled “Arresting project slippage in water resources and infrastructure sector” by D.Kar, S.Basack and **A.K.Bhattacharya** has been published in River Behaviour and Control, Vol. 28, 2007-2008. Pages 23-28.
- J.62. Paper entitled “Land subsidence in Bangkok and Kolkata due to over-extraction of groundwater” by **A.K.Bhattacharya** has been published in the IETECH Journal of Civil and Structures, Vol. 1,

- No. 1, 2008. Pages 13-21.
- J.63. Paper entitled “Comparative study of land subsidence in Bangkok and Kolkata due to over-extraction of groundwater” by M.N.Patra and **A.K.Bhattacharya** has been published in the Journal of Applied Hydrology, Vol. XXI, No. 1 & 2, January & April, 2008. Pages 124-136.
- J.64. Paper entitled “Field study to investigate saline water intrusion into coastal aquifers of Purba Midnapur, West Bengal, India” by **A.K.Bhattacharya** and S.Basack has been published in Civil Engineering Today, American Society of Civil Engineers - India Section, April-October, 2008. Pages 3-9.
- J.65. Paper entitled “Volume of fluid model for numerical simulation of vegetated flows” by K.Debnath, **A.K.Bhattacharya**, B.Mahato and A.Chakrabarti has been published in the ISH Journal of Hydraulic Engineering, Vol.14, No. 2, September, 2008. Pages 72-89.
- J.66. Paper entitled “An analysis of flood control in eastern South Asia” by **A.K.Bhattacharya** and M.M.Rahman has been published in the IETECH Journal of Civil and Structures, Vol. 1, No. 2, 2008. Pages 59-66.
- J.67. Paper entitled “Hydrogeology and land subsidence in Salt Lake City, Kolkata, India” by **A.K.Bhattacharya** has been published in the Electronic Journal of Geotechnical Engineering, Vol. 13, 2008 –Bundle G, ejge paper 2008-0868.
- J.68. Paper entitled “Saline water intrusion in Bhadrak and Balasore districts of Orissa, India” by **A.K.Bhattacharya**, S.Basack and P.Maity has been published in the Electronic Journal of Geotechnical Engineering, Vol. 13, 2008 –Bundle L, ejge paper 2008-0869.
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- C.5. Paper entitled “Stage-discharge relationship for compound open channels” by **A.K.Bhattacharya** and S.K.Kar has been presented at the 38th Congress of the Indian Society of Theoretical and Applied Mechanics, 9 – 12 December, 1993, Indian Institute of Technology, Kharagpur.
- C.6. Paper entitled “Flow in a channel with compound cross-section and meandering platform” by **A.K.Bhattacharya** and S.K.Kar has been published in Proceedings, Ninth Congress of the Asian and Pacific Division of the International Association for Hydraulic Research, 24 – 26 August, 1994, Singapore, Volume 2. Pages 425 – 431.
- C.7. Paper entitled “Computation of flow characteristics in a meandering channel using finite difference method” by K.Mallikarjuna, S.K.Kar and **A.K.Bhattacharya** had been accepted for presentation at the 39th Congress of the Indian Society of Theoretical and Applied Mechanics, 27 – 30 December, 1994, Visakhapatnam.
- C.8. Paper entitled “Teaching civil engineering design with reference to construction practices” by **A.K.Bhattacharya** had been accepted for presentation at the National Seminar on Engineering Education in the Twenty-first Century, 13 – 15 January, 1995, Institute of Technology, Benaras Hindu University, Varanasi.
- C.9. Paper entitled “Nature of flow and distribution of velocity in meanders” by **A.K.Bhattacharya** and S.K.Kar has been presented at, and published in the Proceedings of the Workshop on River Hydraulics, 6 – 8 September, 1995, Bengal Engineering College (Deemed University), Howrah – 711 103. Pages 53 – 68.
- C.10. Paper entitled “Velocity distribution for flow in a compound channel at low relative depth – A model” by **A.K.Bhattacharya** and S.K.Kar had been accepted for presentation at the American Water Resources Association Symposium on the Advances in Development and Use of Models in Water Resources, 5 – 9 November, 1995, Houston, Texas, United States Of America.
- C.11. Paper entitled “On flow in a compound channel at low relative depths” by **A.K.Bhattacharya** and S.K.Kar had been accepted for presentation at the conference, HYDRO - 96, 11 – 13 December, 1996, Indian Institute of Technology, Kanpur.
- C.12. Paper entitled “A review of turbulence and its modelling” by **A.K.Bhattacharya** has been presented at the Seminar on “River Basin Management – Issues and Options” held on the occasion of Water Resources Day, 28 June, 1997, Bengal Engineering College (Deemed University), Howrah.
- C.13. Paper entitled “Hydraulic research development” by **A.K.Bhattacharya** has been presented at the Seminar on “Five Decades of Water Resources Development in India” held on the occasion of Water Resources Day, 10 June, 1998, Bengal Engineering College (Deemed University), Howrah.
- C.14. Paper entitled “Surface water and ground water quality in Hooghly district of West Bengal – A case study” by A.Dasgupta, **A.K.Bhattacharya**, N.Nandi and S.Banerjee has been presented at, and published in the Proceedings of the All India Seminar on Water Vision for the 21st Century, 7 January, 2000, Calcutta. Pages 1 – 6.
- C.15. Paper entitled “Calculation of pollutant concentration in open channels” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Workshop on “Steps for the Prevention and Remedy of Water Pollution”, 14 March, 2000, Bengal Engineering College (Deemed University), Howrah.
- C.16. Paper entitled “Geology and utilisation of ground water in Calcutta, India with a special reference to ground water depletion” by **A.K.Bhattacharya** has been presented at the International Training Workshop on Environmental Impact Assessment with special regard to Water Resources Management, 12 – 16 November, 2001, Asian Institute of Technology, Bangkok, Thailand. Pages AKB-1 – AKB-8.
- C.17. Paper entitled “Inter-basin transfer of water for development of arid regions” by **A.K.Bhattacharya** and S.Choudhury has been published in the Proceedings of the National Conference on Hydraulics and Water Resources, 6 – 7 December, 2001, Pune. Pages 23 – 24.
- C.18. Paper entitled “A meso-scale model for shear stress on soil grain during earthquake” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the All India Seminar on Disaster Management and Civil Engineering Solutions (organised by the American Society of Civil Engineers - India Section), 7 – 8 December, 2001, Calcutta.

- C.19. Paper entitled “Uncertainty analysis of groundwater flow during earthquakes” by **A.K.Bhattacharya** and S.Choudhury has been presented at, and published in the Proceedings of, the All India Seminar on Disaster Management and Civil Engineering Solutions (organised by the American Society of Civil Engineers - India Section), 7 – 8 December, 2001, Calcutta.
- C.20. Paper entitled “ A review of turbulence and its modelling” by **A.K.Bhattacharya** and K.Debnath has been presented at, and published in the Proceedings of, the BSME-ASME International Conference on Thermal Engineering, 31 December,2001 – 2 January, 2002, Dhaka, Bangladesh. Pages 442 – 446.
- C.21. Paper entitled “Finite element analysis of flow under a sheetpile” by S.Maji, S.Mondal, **A.K.Bhattacharya**, M.C.Manna and S.Choudhury had been accepted for presentation at, and was published in the Proceedings of, the International Seminar on Water Resources Management in Arid Regions, 23 - 27 March, 2002, Kuwait. Pages 145 – 154.
- C.22. Paper entitled " Quality of water in some villages of West Bengal - a case study " by **A.K.Bhattacharya**, N.Nandi and S.Ray has been published in Proceedings, Association of Consulting Civil Engineers (India) Annual Convention 2002 and National Seminar on Recent Challenges in Civil Engineering, 21-22 June, 2002, Hyderabad. Pages 29 – 32.
- C.23. Paper entitled " Land subsidence in Kolkata due to over-abstraction of groundwater " by M.N.Patra, **A.K.Bhattacharya** and P.K.Sikdar has been published in Proceedings, Association of Consulting Civil Engineers (India) Annual Convention 2002 and National Seminar on Recent Challenges in Civil Engineering, 21-22 June, 2002, Hyderabad. Pages 33 – 36.
- C.24. Paper entitled " Saline water intrusion into coastal aquifers of West Bengal, India " by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the International Symposium on Low-lying Coastal Areas - Hydrology and Integrated Coastal Zone Management, 9-12 September, 2002, Bremerhaven, Germany. Pages 197 – 200.
- C.25. Paper entitled “Tangential and radial velocity distribution for flow in meandering channels with flood plains” by **A.K.Bhattacharya**, D.Dewan, S.K.Kar and S.Basack has been presented at, and published in the Proceedings of, the International Conference on Water - Related Disasters, 5 – 6 December, 2002, Calcutta. Volume I, Pages 56 – 59.
- C.26. Paper entitled “Environmental Impact Assessment with special reference to water resources projects" by **A.K.Bhattacharya** and P.Mukherjee has been published in Proceedings, National Workshop cum Seminar on Environmental Pollution and its Management, 10-12 December 2002, Calcutta. Pages 39-41.
- C.27. Paper entitled "Hydrogeology of Calcutta” by **A.K.Bhattacharya**, S.Ray, P.K.Majumdar and P.K. Sengupta has been presented at, and published in the Proceedings of, the International Conference – Water and Wastewater : Perspectives of Developing Countries, 11 – 13 December, 2002, New Delhi. Pages 567 – 571.
- C.28. Paper entitled “Some recent problems related to traffic flow in North - Central Kolkata – An overview” by S.Basack and **A.K.Bhattacharya** has been published in the Proceedings of, the All India Seminar on Improving Transportation in a Congested Metropolitan City (organised by the American Society of Civil Engineers - India Section), 13 – 14 December, 2002, Calcutta.
- C.29. Paper entitled “Meander migration in the Ganga - Padma system in India and Bangladesh : Analysis, estimation of migration and control” by D.Dewan and **A.K.Bhattacharya** has been presented at the Tenth West Bengal State Science and Technology Congress, 28 February – 2 March, 2003, Midnapur.
- C.30. Paper entitled “Chloride and arsenic contamination in groundwater in coastal areas of West Bengal” by **A.K.Bhattacharya** and S.Basack has been presented at the Tenth West Bengal State Science and Technology Congress, 28 February – 2 March, 2003, Midnapur.
- C.31. Paper entitled “Reduction of local scour around non-cylindrical bridge piers using collar” by **A.K.Bhattacharya** and S.Basack has been published in the Proceedings of, the Symposium on Advances in Geotechnical Engineering, 7-9 March, 2003, Indian Institute of Technology, Kanpur. Pages 313 – 319.
- C.32. Paper entitled “Problems experienced in upkeepment of an approach road of causeway in lateritic area and that of a bridge in flood-prone area” by S.Basack, **A.K.Bhattacharya** and L.K.Paira has been published in the Proceedings of the National Seminar on Construction Industry for Infrastructure Development (organised by the American Society of Civil Engineers - India Section), 4 December, 2003, Kolkata.

- C.33. Paper entitled "Seepage flow through a soil with a weakly-random heterogeneous hydraulic conductivity field : theoretical formulation" by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the National Seminar on Pollution in Urban Industrial Environments, 4-5 December, 2003, Jamshedpur.
- C.34. Paper entitled "Geotextiles : Applications in Civil Engineering" by **A.K.Bhattacharya** has been presented at , and published in the Proceedings of, the National Seminar on Pollution in Urban Industrial Environments, 4-5 December, 2003, Jamshedpur.
- C.35. Paper entitled "Inter-basin transfer of water in India" by P.Basu, **A.K.Bhattacharya**, S.Basack, P. Maity and S.Banerjee has been presented at, and published in the Proceedings of, the International Conference on Water and Environment: Planning, Development, Utilisation, Conservation and Management, 15-18 December, 2003, Bhopal. Vol. 5, pages 524 – 527.
- C.36. Paper entitled "Analysis and control of meander migration in the Ganga-Padma system of India and Bangladesh" by **A.K.Bhattacharya** and D.Dewan has been presented at, and published in the Proceedings of, the International Conference on Water and Environment: Planning, Development, Utilisation, Conservation and Management, 15-18 December, 2003, Bhopal. Vol. 4, pages 400-401.
- C.37. Paper entitled "Local-scale deterministic and meso-scale stochastic Forchheimer flow through porous media" by **A.K.Bhattacharya** has been presented at the 2nd Annual Departmental Seminar on Sponsored and Other Ongoing Research Projects, 19 December, 2003, Department of Applied Mechanics, Bengal Engineering College (Deemed University), Howrah.
- C.38. Paper entitled "Land subsidence in Kolkata due to groundwater overdraft" by **A.K.Bhattacharya** and M.N.Patra has been presented at the 2nd Annual Departmental Seminar on Sponsored and Other Ongoing Research Projects, 19 December, 2003, Department of Applied Mechanics, Bengal Engineering College (Deemed University), Howrah.
- C.39. Paper entitled "Non-linear flow of saline water through porous media" by **A.K.Bhattacharya**, S.Basack and P.K.Mahapatra has been published in the Proceedings of, the 2nd BSME-ASME International Conference on Thermal Engineering, 2-4 January, 2004, Dhaka, Bangladesh. Pages 340-345.
- C.40. Paper entitled "A feasible method of groundwater extraction in the United Arab Emirates and Qatar" by **A.K.Bhattacharya**, S.Basack and P.Maity has been presented at, and published in the Proceedings of, the International Conference on Water Resources – Flood Control, Irrigation, Drinking Water, Waterways, Electric Power and Transmission System, 3-4 February, 2004, New Delhi. Pages 170-175.
- C.41. Paper entitled "Problems experienced during and after construction of foundation work for hydraulic structure on river bed : A case study " by **A.K.Bhattacharya**, S.Basack and L.K.Paira has been presented at, and published in the Proceedings of, the National Symposium INGENERIA-2004, 20 February, 2004, Indian Institute of Technology Madras, Chennai.
- C.42. Keynote paper entitled "Inter-basin transfer of water in India" by **A.K.Bhattacharya** has been published in Proceedings of a Seminar on Interlinking of Rivers organised by the Department of Geology and Water Resources Management, Pandit Ravi Shankar Shukla University, Raipur, 22 March, 2004.
- C.43. Paper entitled "Teamwork and Motivation – Essential requirements for the success of a civil engineering project " by S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the All India Seminar on Role of Management for Infrastructural Development, 19-20 March, 2004, Kolkata.
- C.44. Lecture entitled "Saline water intrusion in coastal aquifers of the United Arab Emirates" by **A.K.Bhattacharya** has been delivered at the Paper Meeting of the American Society of Civil Engineers –India Section on 17 June, 2004, Kolkata.
- C.45. Paper entitled "Legal aspects of inter-basin transfer of water in eastern India " by **A.K.Bhattacharya** had been accepted for the American Water Resources Association and International Water Law Research Institute International Specialty Conference, 29 August – 1 September, 2004, Dundee, Scotland, United Kingdom.
- C.46. Paper entitled "Lowering of groundwater table – Effects and remedies" by D.Kar, **A.K.Bhattacharya**, S.Basack and M.Debnath has been presented at, and published in the Proceedings of, the All India Seminar on Geotechnical Aspects of Civil Engineering (organised by the American Society of Civil Engineers - India Section), 10-11 December, 2004, Kolkata.
- C.47. Paper entitled "Evaluation of local scour around spurs in open channel" by **A.K.Bhattacharya**,

- S.Basack, S.K.Sarkar and D.Kar has been presented at, and published in the Proceedings of, the All India Seminar on Geotechnical Aspects of Civil Engineering (organised by the American Society of Civil Engineers - India Section), 10-11 December, 2004, Kolkata.
- C.48. Paper entitled “Case studies of subsidence in a stretch of south Calcutta” by M.N.Patra and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the All India Seminar on Geotechnical Aspects of Civil Engineering (organised by the American Society of Civil Engineers - India Section), 10-11 December, 2004, Kolkata.
- C.49. Paper entitled "Analysis of Darcy and Forchheimer Flow in unconfined aquifer due to extraction of groundwater through single and multiple wells and associated land subsidence" by S.Basack, **A.K.Bhattacharya** and M.Debnath has been presented at the 3rd Annual Departmental Seminar on Sponsored and Other Ongoing Research Projects, 3 January, 2005, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur, Howrah.
- C.50. Paper entitled “Urban flooding in Kolkata” by **A.K.Bhattacharya** has been presented at the 2nd Regional Workshop on Disaster Management, 21-23 February, 2005, Bengal Engineering and Science University, Shibpur, Howrah.
- C.51. Paper entitled “Floods in Kolkata – causes, effects and remedies” by **A.K.Bhattacharya**, S.Basack, S.K.Sarkar, M.Debnath and S.Sarkar has been presented at the Twelfth West Bengal State Science and Technology Congress, 28 February – 1 March, 2005, Kolkata.
- C.52. Paper entitled “Water problem for the developing world” by D.Kar, **A.K.Bhattacharya** and S.Basack has been presented at the Twelfth West Bengal State Science and Technology Congress, 28 February – 1 March, 2005, Kolkata.
- C.53. Paper entitled “Linear flow in unconfined aquifer due to extraction of groundwater through wells and associated land subsidence ” by S.Basack, **A.K.Bhattacharya** and M.Debnath has been presented at, and published in the Proceedings of, Geopredict 2005, 3 June, 2005, Indian Institute of Technology Madras, Chennai. Pages 170-175.
- C.54. Paper entitled “Scour around bridge piers and river training works” by **A.K.Bhattacharya**, S.Basack, S.K.Sarkar and D.Kar has been presented at, and published in the Proceedings of, the International Conference on Crisis Management in Water and Environment, 14-15 July, 2005, Kolkata. Vol 1, 53-54.
- C.55. Paper entitled “Hydrodynamic interactions between rivers and aquifers: Implications on environmental flow in Ogun River Basin, Nigeria” by G.A.Bolaji , **A.K.Bhattacharya**, S.Dey and S.Basack has been presented at, and published in the Proceedings of, the International Conference on Crisis Management in Water and Environment, 14-15 July, 2005, Kolkata. Vol 1, pages 123-127.
- C.56. Invited Lecture entitled “Saline water intrusion in coastal aquifers of West and South Asia” by A.K.Bhattacharya has been delivered at the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi on 23 September, 2005 at the Short Term Training Course on Mathematical Models in Hydrogeochemistry: Assessment of Groundwater Quality and Management (Under Department of Science and Technology, Government of India, Schools of Mathematical Modelling in Earth System Sciences Program) held during 19 September – 5 October, 2005.
- C.57. Invited Lecture entitled “Saline water intrusion in coastal aquifers of West and South Asia” by **A.K.Bhattacharya** has been delivered at the National University of Singapore, Singapore on 28 September, 2005.
- C.58. Paper entitled “Permeability, porosity and leaching of soil and fractured rocks with special reference to a proposed Uranium tailing pond” by **A.K.Bhattacharya**, K.Debnath and S.Basack has been presented at, and published in the Proceedings of, the National Conference on Hydraulics and Water Resources, 8-9 December, 2005, Tumkur. Pages 158-161.
- C.59. Paper entitled “Impact of salinity intrusion in the inland coast of Bangladesh ” by M.M.Rahman and **A.K.Bhattacharya** has been for presented at, and published in the Proceedings of, the National Conference on Hydraulics and Water Resources, 8-9 December, 2005, Tumkur. Pages 759-802.

- C.60. Paper entitled “Environment, health and safety aspects of subway projects” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the All India Seminar on Utilisation of Skyways and Subways in the Cities of India (organised by the American Society of Civil Engineers - India Section), 9-10 December, 2005, Kolkata.
- C.61. Paper entitled “Analysis and control of slippage in water resource development projects” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Twentieth Indian Engineering Congress, 15-18 December, 2005, Kolkata. Pages 29-31.
- C.62. Paper entitled “A case study of geohydraulic characteristics in coastal aquifers of Purba Midnapur, West Bengal, India ” by **A.K.Bhattacharya**, S.Basack, P.Maity and S.Sarkar has been presented at, and published in the Proceedings of, the Indian Geotechnical Conference, 17-19 December, 2005, Ahmedabad. Pages 315-318.
- C.63. Paper entitled “Development of an apparatus for imparting cyclic load on model pile foundation” by **A.K.Bhattacharya** and S.Basack had been accepted for the 93rd Indian Science Congress, 3-7 January, 2006, Hyderabad.
- C.64. Lecture entitled “SIMGRO : An overview” by **A.K.Bhattacharya** has been delivered at Bengal Engineering and Science University, Shibpur, 17 January, 2006.
- C.65. Paper entitled “Timely completion of infrastructure projects – the key issue” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Seminar on Infrastructure – Vision 2020 organised by the Bengal Engineering College Ex-Students’ Club, Bidhannagar, Kolkata, 11 February, 2006.
- C.66. Invited Paper entitled “Thermal pollution in aquatic ecosystems” by **A.K.Bhattacharya** had been accepted for presentation at, and publication in the Proceedings of, the WSEAS (World Scientific and Engineering Academy and Society) organised 4th IASME/WSEAS International Conference on Heat Transfer, Thermal Engineering and Environment, Elounda, 21-23 August, 2006, Agios Nikolaos, Crete Island, Greece.
- C.67. Paper entitled “Water resources infrastructure development for poverty eradication” by D.Kar, S.Basack and **A.K.Bhattacharya**, has been presented at, and published in the Proceedings of, the All India Seminar on Infrastructure Development as related to Poverty Alleviation (organised by the American Society of Civil Engineers – India Section) , 8 -9 December, 2006, Kolkata. Pages 1-5.
- C.68. Paper entitled “Alteration of hydraulic conductivity of sand due to submergence under saline water” by **A.K.Bhattacharya**, S.Basack and P.Maity has been presented at, and published in the Proceedings of, the Indian Geotechnical Conference, 16-18 December, 2006, Indian Institute of Technology Madras, Chennai. Pages 843-844.
- C.69. Paper entitled “A case study on treatment of expansive soil with sand under a rural road construction project” by S.Basack, **A.K.Bhattacharya**, L.K.Paira and P.Maity has been presented at, and published in the Proceedings of, the Indian Geotechnical Conference, 16-18 December, 2006, Indian Institute of Technology Madras, Chennai. Pages 321-323.
- C.70. Invited Paper entitled “Implementation of construction projects on schedule – a challenge to the developing world” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the International Conference on Civil Engineering in the New Millennium: Opportunities and Challenges, 11-14 January, 2007, Bengal Engineering and Science University, Shibpur, Howrah.
Paper No. GEN 001.
- C.71. Paper entitled “Response of pile groups under lateral cyclic load – An experimental study” by S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the International Conference on Civil Engineering in the New Millennium: Opportunities and Challenges, 11-14 January, 2007, Bengal Engineering and Science University, Shibpur, Howrah.
Paper No. GT 048.
- C.72. Paper entitled “Flood management in the flood plain of Bangladesh” by M.M.Rahman, M.A.Hossain and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the International Conference on Civil Engineering in the New Millennium: Opportunities and Challenges, 11-14 January, 2007, Bengal Engineering and Science University, Shibpur, Howrah.
Paper No. WRE 015.
- C.73. Paper entitled “Urban water supply” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Fourteenth West Bengal State Science and Technology Congress, 28 February – 1 March, 2007, Kolkata.

- C.74. Invited Paper entitled “Land subsidence in Kolkata” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Workshop on Integrated Water Resources Management, 7-9 March, 2007, Royal Scientific Society, Al-Jubaiha, Amman, Jordan.
- C.75. Paper entitled “A hydrological and hydrochemical study of the deltaic aquifer existing in Haldia, West Bengal, India” by P.Maity, **A.K.Bhattacharya** and S.Basack has been presented at, and published in the Proceedings of, the National Seminar on Agriculture Development and Rural Drinking Water, 4-5 April, 2007, Bhopal. Vol. I, pages 29-31.
- C.76. Paper entitled “Water crisis in Birbhum, West Bengal, India” by **A.K.Bhattacharya**, M.N.Patra and A.Dasgupta has been presented at, and published in the Proceedings of, the National Seminar on Agriculture Development and Rural Drinking Water, 4-5 April, 2007, Bhopal. Vol. II, pages 105-110.
- C.77. Paper entitled “Water resources management – Key to India’s urbanisation” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at the World Congress of Engineering 2007, 2-4 July, 2007, London, United Kingdom.
- C.78. Paper entitled “Flood management in eastern India and Bangladesh” by **A.K.Bhattacharya**, M.M.Rahman and M.A.Hossain had been accepted for presentation at, and publication in the Proceedings of, the 32nd Congress of the International Association of Hydraulic Engineering and Research, 1-6 July, 2007, Venice, Italy.
- C.79. Paper entitled “Arresting slippage in water resource and infrastructure development projects” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the theProceedings of, the Seminar organised by the Bengal Engineering College Ex-Students’ Club, Bidhannagar, Kolkata, 25 August, 2007.
- C.80. Paper entitled “An analysis of flood control in eastern South Asia” by **A.K.Bhattacharya** and M.M.Rahman has been presented at the XXVI National Seminar on Hydrology, North-Eastern Hill University, Shillong, 26-28 October, 2007.
- C.81. Paper entitled “Comparative study of subsidence in Bangkok and Kolkata due to over-extraction of groundwater” by M.N.Patra and **A.K.Bhattacharya** has been presented at the XXVI National Seminar on Hydrology, North-Eastern Hill University, Shillong, 26-28 October, 2007. (This paper has also been published in the Journal of Applied Hydrology.)
- C.82. Paper entitled “Soil-groundwater interaction : A case study” by **A.K.Bhattacharya** and M.N.Patra has been presented at the XXVI National Seminar on Hydrology, North-Eastern Hill University, Shillong, 26-28 October, 2007.
- C.83. Paper entitled “Water resources management and Indian urbanisation” by D.Kar. S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the All India Seminar on Urbanisation in the present Global Scenario organised by the American Society of Civil Engineers – India Section, 7-8 December, 2007, Kolkata.
- C.84. Paper entitled “A mathematical model for the tangential velocity in a sinuous open channel” by **A.K.Bhattacharya** has been presented at the 52nd Congress of the Indian Society of Theoretical and Applied Mechanics, 14 – 17 December, 2007, B.N.M.Institute of Technology, Bangalore.
- C.85. Paper entitled “Saline water intrusion in coastal aquifers of Bhadrak and Balasore districts of Orissa, India” by **A.K.Bhattacharya**, S.Basack, P.Maity and C.Sahana has been presented at, and published in the Proceedings of, the Fifteenth West Bengal State Congress of Science and Technology, 28-29 February, 2007, Bengal Engineering and Science University, Shibpur, Howrah.
- C.86. Paper entitled “Arresting slippage in water and other infrastructure projects” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Fifteenth West Bengal State Congress of Science and Technology, 28-29 February, 2007, Bengal Engineering and Science University, Shibpur, Howrah.
- C.87. Paper entitled “Efficient management of water resources – Problems and prospects” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the National Symposium on Environment and Water, 18 April, 2008, Kolkata. Pages 15-17.
- C.88. Paper entitled “A review of groundwater depletion in Kolkata and associated land subsidence” by **A.K.Bhattacharya**, had been accepted for presentation at, and publication in the Proceedings of, the 8th International Conference of the International Association for Computer Methods and Advances in Geomechanics, 1-8 October, 2008, Goa.
- C.89. Paper entitled “Reducing local scour around bridge pier using upsteam piles” by **A.K.Bhattacharya** and S.Basack has been presented at the 53rd Congress of the Indian Society of Theoretical and Applied Mechanics, 27-30 December, 2008, Hyderabad.

- C.90. Paper entitled “Vortex shedding at pump intakes” by **A.K.Bhattacharya** has been presented at the 53rd Congress of the Indian Society of Theoretical and Applied Mechanics, 27-30 December, 2008, Hyderabad.
- C.91. Paper entitled “Preloading and vertical drains for consolidation of soft soil” by **A.K.Bhattacharya** and S.Dandapat has been presented at, and published in the Proceedings of, the National Seminar on Emerging Trends in Ground Improvement, 22-23 May, 2009, Kolkata. Pages 44-47.
- C.92. Paper entitled “Geology of Kolkata with a special reference to groundwater flow and land subsidence” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the National Conference on Hydraulics, Water Resources, Coastal and Environmental Engineering, 17-18 December, 2009, Pune. Pages 264-266.
- C.93. Paper entitled “Simulating dry weather groundwater flow in temperate climates using BILAN” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the 54th Congress of the Indian Society of Theoretical and Applied Mechanics, 18-21 December, 2009, New Delhi. Pages 103-105.
- C.94. Paper entitled “Effective execution and monitoring of public health engineering projects applying modern techniques of communication and information technology” by D.Kar, S.Basack and **A.K.Bhattacharya** has been presented at the National Conference on Engineering, Materials, Equipment and Instrumentation with special emphasis on Public Health Engineering Projects, 19-20 April, 2010, Kolkata.
- C.95. Paper entitled “A review of the use of the pre-loading technique and vertical drains for soil consolidation” by **A.K.Bhattacharya** and S.Basack has been presented at, and published in the Proceedings of, the Indian Geotechnical Conference, 15-17 December, 2011, Kochi. Vol. I, pages 361-364. Paper No. H-029.
- C.96. Paper entitled “Effect of very mild random tremors on saturated sub-surface flow” by **A.K.Bhattacharya** and D.Kumar has been presented at, and published in the Proceedings of, the International Symposium on Engineering under Uncertainty: Safety Assessment and Management, 4-6 January, 2012, Bengal Engineering and Science University, Shibpur, Howrah. Paper No. CNP002.
- C.97. Paper entitled “Hydrogeological investigation on saline water intrusion into a coastal aquifer of West Bengal, India” by S.Basack, **A.K.Bhattacharya** and P.Maity has been presented at, and published in the Proceedings of, the Indian Geotechnical Conference, 15-17 December, 2012, Delhi. Vol. II, pages 763-766. Paper No. G-701.
- C.98. Paper entitled “Analysis and control of saline water intrusion into a coastal aquifer in West Bengal, India” by S.Basack, **A.K.Bhattacharya** and P.Maity has been presented at, and published in the Proceedings of, the Indian Geotechnical Conference, 22-24 December, 2013, Roorkee. Paper No. 98.
- C.99. Paper entitled “A control methodology for saline water intrusion adopted in coastal aquifer of West Bengal, India” by S.Basack, **A.K.Bhattacharya** and P.Maity has been presented at, and published in the Proceedings of, the National Seminar on ‘Geotechnique Today – Prediction, Modelling and Construction’, 28 February-1 March, 2014, Kolkata. Pages 47-52.
- C.100. Paper (Keynote Paper) entitled “Saline water intrusion in coastal aquifers of Bangladesh” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the 32nd and 33rd AHI National Seminar on “Water Resources” with a colloquium on ‘Interlinking of Rivers with Special Reference to Andhra Pradesh’, 10-11 July, 2015, Visakhapatnam.
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- C.102. Paper entitled “Saline water intrusion in West Asia” by **A.K.Bhattacharya**, A.Chandanam, A.Thakur and R.Meena has been presented at, and published in the Proceedings of, the 32nd and 33rd AHI National Seminar on “Water Resources” with a colloquium on ‘Interlinking of Rivers with Special Reference to Andhra Pradesh’, 10-11 July, 2015, Visakhapatnam.
- C.103. Paper (Keynote Paper) entitled “Saline water intrusion in coastal aquifers: A case study from India” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS4-64K. Pages IV – 12–33.

- C.104. Paper entitled “Effect of depletion of groundwater table in Kolkata with special emphasis on structural distress” by **A.K.Bhattacharya**, K.A.Kumar, R.Rakesh and B.B.Naik has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS1-12. Pages I – 101–111.
- C.105. Paper entitled “Exploration of groundwater in Saudi Arabia” by **A.K.Bhattacharya**, K.A.Kumar, R.Rakesh and B.B.Naik has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS1-16. Pages I – 140–148.
- C.106. Paper entitled “Saline water intrusion in coastal aquifers: A case study from Bangladesh” by **A.K.Bhattacharya**, S.Rizwana, K.A.Kumar, R.Rakesh has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS4-63. Pages IV – 395-403.
- C.107. Paper entitled “Significance of hydro-geological and hydro-chemical analysis in the evaluation of coastal groundwater resources in eastern India” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID S4-67. Pages IV – 414-431.
- C.108. Paper entitled “Saline water intrusion into coastal Nigeria” by **A.K.Bhattacharya**, A.Chandanam, A.Thakur and R.Meena has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS4-90. Pages IV – 468–479.
- C.109. Paper entitled “Effect of very mild random tremors on saturated sub-surface flow” by **A.K.Bhattacharya**, K.A.Kumar, R.Rakesh, B.B.Naik and S.Rizwana has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS5 – 05. Pages V – 145-148.
- C.110. Paper entitled “Simulating dry weather groundwater flow in temperate climates using BILAN” by **A.K.Bhattacharya**, A.Chandanam, A.Thakur and R.Meena has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS5 – 21. Pages V – 252-256.
- C.111. Paper entitled “A multi-noded finite element analysis of groundwater flow beneath a sheetpile” by **A.K.Bhattacharya**, A.Chandanam, A.Thakur and R.Meena has been presented at, and published in the Proceedings of, the Sixth International Groundwater Conference, 11-13 February, 2016, Chennai. Paper ID TS5 – 32. Pages V – 301-308.
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- C.118. Paper entitled “Analysis and control of saline water intrusion into Contai, West Bengal, India” by **A.K.Bhattacharya**, A.Sharma, K.Srinivas, P.K.Singh and D.M.P.Karthik has been presented at, and published in the Proceedings of, the First Indian National Groundwater Conference, 5-7

- October, 2016, Hyderabad.
- C.119. Paper entitled “A detailed mathematical analysis of groundwater hydraulics in randomly heterogeneous soil” by **A.K.Bhattacharya**, A.Sharma, K.Srinivas and P.K.Singh has been presented at, and published in the Proceedings of, the First Indian National Groundwater Conference, 5-7 October, 2016, Hyderabad.
- C.120. Paper entitled “Pre-monsoon water quality including groundwater quality in some areas of Hooghly district of West Bengal, India” by **A.K.Bhattacharya**, A.Sharma, K.Srinivas and P.K.Singh has been presented at, and published in the Proceedings of, the First Indian National Groundwater Conference, 5-7 October, 2016, Hyderabad.
- C.121. Paper (Keynote Paper) entitled “Saline water intrusion in coastal areas of Asia” by **A.K.Bhattacharya** has been presented at, and published in the Proceedings of, the International Conference on Water and Wastewater Management and Modelling (ICWMM-2018), 16-17 January, 2018, Ranchi.
- C.122. Paper entitled “Sustainable urbanisation for sustainable development” by **A.K.Bhattacharya** has been published in the Proceedings of the National Convention on Sustainable Urbanisation (INFRA CE-2018) held at Nashik during 27-28 July, 2018. Page 014.
- C.123. Paper entitled “Recent advances in civil engineering” by **A.K.Bhattacharya** has been published in the the Proceedings of the National Conference on Recent Advances in Civil Engineering (RACE-2019) held at Mysore during 18-19 January, 2019.
- C.124. Paper entitled “The business of civil engineering” by **A.K.Bhattacharya** has been accepted for publication in the Proceedings of the National Seminar on Global Trends in Concrete-Steel Composite Structures Design and Construction scheduled to be held at Bangalore during 10-11 May, 2019.

(c) **Reports :**

- R.1. Report number BESUS/AICTE/AM/AB/154/A " Analysis and Control of Saline Water Intrusion in Coastal Aquifers with special emphasis on East Coast of India. " by **A.K.Bhattacharya** has been submitted to the All India Council for Technical Education, Ministry of Human Resources Development, Government of India, 2005.
- R.2. Report number BESUS/AICTE/AM/AB/154/B " Analysis and Control of Saline Water Intrusion in Coastal Aquifers with special emphasis on East Coast of India. " by **A.K.Bhattacharya** has been submitted to the All India Council for Technical Education, Ministry of Human Resources Development, Government of India, 2006.

(d) **Monographs in Books :**

- M.1. “Geological Factors influencing Saline Water Intrusion in the Coastal Aquifers of the East Coast of India” by **A.K.Bhattacharya**. Training Manual on Mathematical Modelling of Groundwater Flow and Mass Transport. Eds. A.L.Ramanathan, M.Thangarajan and D.R.Ram, Prashant Publishing Company, New Delhi, 2004. Pages 337-342. ISBN 81-7525-549-8.
- M.2. “Saline Water Intrusion into Coastal Aquifers of Purba Midnapur, West Bengal, India” by **A.K.Bhattacharya**. Training Manual on Mathematical Modelling of Groundwater Flow and Mass Transport. Eds. A.L.Ramanathan, M.Thangarajan and D.R.Ram, Prashant Publishing Company, New Delhi, 2004. Pages 343-346. ISBN 81-7525-549-8.
- M.3. “Saline Water Intrusion in Coastal Bangladesh” by M.M.Rahman and **A.K.Bhattacharya**. Mathematical Models in Hydrogeochemistry – Assessment of Groundwater Quality and Management. Eds. A.L.Ramanathan, M.Thangarajan and D.R.Ram, Prashant Publishing Company. New Delhi, 2005. ISBN 81-903248-0-2.
- M.4. “Saline Water Intrusion in Coastal Areas: A Case Study from India” by **A.K.Bhattacharya**. Water and Wastewater Management. Ed. A.Singh, Apple Academic Press (in press).
- M.5. “An Analysis of Flood Control in Eastern South Asia” by **A.K.Bhattacharya**. Water and Wastewater Management. Ed. A.Singh, Apple Academic Press (in press).
- M.6. “An Analysis of Saline Water Intrusion into Coastal Nigeria” by **A.K.Bhattacharya**. Water and Wastewater Management. Ed. A.Singh, Apple Academic Press (in press).

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- WP.3. White Paper entitled “Arsenic contamination in the groundwater of India” by **A.K.Bhattacharya, D.M.P.Karthik, A.Gautam, A.Sharma, K.Srinivas and P.K.Singh** has been published on 4 May, 2016. MultiSpectra Consultants White Paper #3.
- WP.4. White Paper entitled “A detailed mathematical analysis of groundwater hydraulics in randomly heterogeneous soil” by **A.K.Bhattacharya, A.Sharma, K.Srinivas and P.K.Singh** has been published on 18 May, 2016. MultiSpectra Consultants White Paper #4.
- WP.5. White Paper entitled “Pre-monsoon water quality including groundwater quality in some areas of Hooghly district of West Bengal, India” by **A.K.Bhattacharya, A.Sharma, K.Srinivas and P.K.Singh** has been published on 25 May, 2016. MultiSpectra Consultants White Paper #5.
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- WP.7. White Paper entitled “Saline water intrusion in coastal aquifers of Orissa, India” by **A.K.Bhattacharya, A.Gautam, A.Sharma, K.Srinivas and P.K.Singh** has been published on 10 August, 2016. MultiSpectra Consultants White Paper #7.
- WP.8. White Paper entitled “A novel method of analysing dam break phenomena using smoothed particle hydrodynamics and validation with FE Method” by **A.K.Bhattacharya** and **D.M.P.Karthik** has been published on 12 August, 2016. MultiSpectra Consultants White Paper #8.
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- WP.71. White Paper entitled “Sedimentary Facies and Depositional Environments of the Neoproterozoic sediments of the Gambaga – Nakpanduri areas of Northeastern Voltaian Basin, Ghana” by **A.K.Bhattacharya** has been published on 20 January, 2018. MultiSpectra Consultants White Paper #71.
- WP.72. White Paper entitled “A Comprehensive Mathematical Model of Flow in a Meandering Channel” by **A.K.Bhattacharya** has been published on 21 January, 2018. MultiSpectra Consultants White Paper #72.
- WP.73. White Paper entitled “An Analysis of Saline Water Intrusion into Coastal Nigeria” by **A.K.Bhattacharya** has been published on 22 January, 2018. MultiSpectra Consultants White Paper #73.
- WP.74. White Paper entitled “The Ogun River in Nigeria - A Review” by **A.K.Bhattacharya** has been published on 25 January, 2018. MultiSpectra Consultants White Paper #74.
- WP.75. White Paper entitled “An Analysis of Flood Control in Eastern South Asia” by **A.K.Bhattacharya** has been published on 31 January, 2018. MultiSpectra Consultants White Paper #75.
- WP.76. White Paper entitled “An Overview of Hydrogeological and Meteorological Conditions for Aquifer Variability in Nigeria: A Crux Index for Sustainable Development” by **A.K.Bhattacharya** has been published on 10 March, 2018. MultiSpectra Consultants White Paper #76.
- WP.77. White Paper entitled “Arsenic Contamination in the Groundwater of India with a Special Focus on the Stabilisation of Arsenic-Laden Sludge from Arsenic Filters” by **A.K.Bhattacharya** and R.Lodh has been published on 17 April, 2018. MultiSpectra Consultants White Paper #77.
- WP.78. White Paper entitled “Trends Analysis of Stream Flow at Different Gauging Stations in Upper Jhelum River” by **A.K.Bhattacharya** has been published on 4 May, 2018. MultiSpectra Consultants White Paper #78.
- WP.79. White Paper entitled “The Elbe River - A Review” by **A.K.Bhattacharya**, D.M.P. Karthik, S.Kumari, V.Kumari and K.Daksh has been published on 25 May, 2018. MultiSpectra Consultants White Paper #79.
- WP.80. White Paper entitled “The Oder River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari and K.Daksh has been published on 25 May, 2018. MultiSpectra Consultants White Paper #80.

- WP.81. White Paper entitled “The Lusatian Neisse River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari and K.Daksh has been published on 25 May, 2018. MultiSpectra Consultants White Paper #81.
- WP.82. White Paper entitled “The Soča River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari and K.Daksh has been published on 25 May, 2018. MultiSpectra Consultants White Paper #82.
- WP.83. White Paper entitled “The Thames River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh and P.Kumar has been published on 1 June, 2018. MultiSpectra Consultants White Paper #83.
- WP.84. White Paper entitled “The Po River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh and P.Kumar has been published on 1 June, 2018. MultiSpectra Consultants White Paper #84.
- WP.85. White Paper entitled “The Vistula River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh and P.Kumar has been published on 2 June, 2018. MultiSpectra Consultants White Paper #85.
- WP.86. White Paper entitled “The Sava River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh and P.Kumar has been published on 2 June, 2018. MultiSpectra Consultants White Paper #86.
- WP.87. White Paper entitled “The Chao Phraya River - A Review” by **A.K.Bhattacharya**, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh and P.Kumar has been published on 2 June, 2018. MultiSpectra Consultants White Paper #87.
- WP.88. White Paper entitled “Land Subsidence in Far South-Suburban Calcutta” by **A.K.Bhattacharya**, S.Kumari, V.Kumari, K.Daksh, P.Kumar and Anurag has been published on 11 June, 2018. MultiSpectra Consultants White Paper #88.
- WP.89. White Paper entitled “A Comprehensive Study on the Stabilisation of Arsenic-Laden Sludge from Arsenic Filters” by **A.K.Bhattacharya**, R.Lodh, A.Roy, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh, P.Kumar and Anurag has been published on 15 June, 2018. MultiSpectra Consultants White Paper #89.
- WP.90. White Paper entitled “Determinants of Ineffective Solid Waste Management in Akoko South-West Area of Ondo State” by **A.K.Bhattacharya** has been published on 18 June, 2018. MultiSpectra Consultants White Paper #90.
- WP.91. White Paper entitled “Arsenic Contamination in the Groundwater of India, Bangladesh and Nepal with a Special Focus on the Stabilisation of Arsenic-Laden Sludge from Arsenic Filters” by **A.K.Bhattacharya**, R.Lodh, A.Roy, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh, P.Kumar, and Anurag has been published on 21 June, 2018. MultiSpectra Consultants White Paper #91.
- WP.92. White Paper entitled “Arsenic Contamination in the Groundwater of India, Bangladesh and Nepal with a Special Focus on the Stabilisation of Arsenic-Laden Sludge from Arsenic Filters” by **A.K.Bhattacharya**, R.Lodh, A.Roy, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh, P.Kumar and Anurag has been published on 30 June, 2018. MultiSpectra Consultants White Paper #92.
- WP.93. White Paper entitled “Early Stage to a Growth Stage” by **A.K.Bhattacharya** has been published on 3 July, 2018. MultiSpectra Consultants White Paper #93.
- WP.94. White Paper entitled “How to Strategically Plan for your Startup” by **A.K.Bhattacharya** has been published on 3 July, 2018. MultiSpectra Consultants White Paper #94.
- WP.95. White Paper entitled “Sustainable Urbanisation for Sustainable Development” by **A.K.Bhattacharya** has been published on 18 July, 2018. MultiSpectra Consultants White Paper #95.
- WP.96. White Paper entitled “Structure of Hong Hills in Hawal Precambrian Basement Complex, North East Nigeria” by **A.K.Bhattacharya** has been published on 11 August, 2018. MultiSpectra Consultants White Paper #96.
- WP.97. White Paper entitled “On Issues Related to Use of Arsenic-Laden Sludge from Arsenic Filters in Construction” by **A.K.Bhattacharya**, R.Lodh, D.M.P.Karthik, S.Kumari, V.Kumari, K.Daksh, P.Kumar and Anurag has been published on 28 August, 2018. MultiSpectra Consultants White Paper #97.
- WP.98. White Paper entitled “Simplifying Defluoridation” by **A.K.Bhattacharya** and M.Nitzsche has been published on 5 December, 2018. MultiSpectra Consultants White Paper #98.
- WP.99. White Paper entitled “Recent Advances in Civil Engineering” by **A.K.Bhattacharya** has been published on 13 December, 2018. MultiSpectra Consultants White Paper #99.

- WP.100. White Paper entitled “Arsenic Contamination in the Groundwater of West Bengal, Jharkhand and Bihar” by **A.K.Bhattacharya**, R.Lodh, A.Roy, D.M.P.Karthik, A.Singh, S.Kumari, V.Kumari, K.Daksh, P.Kumar, Anurag and A.K.Mishra has been published on 15 December, 2018. MultiSpectra Consultants White Paper #100.
- WP.101. White Paper entitled “An Analysis of Arsenic Contamination in the Groundwater of India, Bangladesh and Nepal with a Special Focus on the Stabilisation of Arsenic-Laden Sludge from Arsenic Filters” by **A.K.Bhattacharya**, R.Lodh, A.Roy, D.M.P.Karthik, A.Singh, S.Kumari, V.Kumari, K.Daksh, P.Kumar, Anurag and A.K.Mishra has been published on 16 December, 2018. MultiSpectra Consultants White Paper #101.
- WP.102. White Paper entitled “The Business of Civil Engineering: Spotlight on Innovation and Entrepreneurship” by **A.K.Bhattacharya** has been published on 22 December, 2018. MultiSpectra Consultants White Paper #102.
- WP.103. White Paper entitled “An Analysis of and Remediation of Cracks in Bridges in a Trunk Highway” by **A.K.Bhattacharya**, A.K.Mishra and D.M.P.Karthik has been published on 10 January, 2019. MultiSpectra Consultants White Paper #103.
- WP.104. White Paper entitled “A Study on Protection of Marine Structures from Effects of Salinity” by **A.K.Bhattacharya**, A.K.Mishra and D.M.P.Karthik has been published on 12 January, 2019. MultiSpectra Consultants White Paper #104.
- WP.105. White Paper entitled “The Business of Civil Engineering” by **A.K.Bhattacharya** has been published on 3 February, 2019. MultiSpectra Consultants White Paper #105.
- WP.106. White Paper entitled “Scour due to Offset Jets” by R.Lodh and **A.K.Bhattacharya** has been published on 12 February, 2019. MultiSpectra Consultants White Paper #106.
- WP.107. White Paper entitled “Turbidity Currents” by R.Lodh and **A.K.Bhattacharya** has been published on 18 February, 2019. MultiSpectra Consultants White Paper #107.

(f) *In Uncharted Waters (Journal of MultiSpectra Consultants. Editor: Dr. Amartya Kumar Bhattacharya) :*

- IUW.1. In Uncharted Waters, Vol. 1, No. 1. has been published on 6 March, 2018.
- IUW.2. In Uncharted Waters, Vol. 1, No. 2. has been published on 6 June, 2018.
- IUW.3. In Uncharted Waters, Vol. 1, No. 3. has been published on 6 September, 2018.
- IUW.4. In Uncharted Waters, Vol. 1, No. 4. has been published on 6 December, 2018.

(g) *Others :*

- O.1. Lecture entitled “Turbulence and turbulence modelling: Part I” by **A.K.Bhattacharya** has been delivered at Bengal Engineering College (Deemed University) on 9 July, 1999.
- O.2. Lecture entitled “Turbulence and turbulence modelling: Part II” by **A.K.Bhattacharya** has been delivered at Bengal Engineering College (Deemed University) on 23 July, 1999.
- O.3. Article entitled " Till the last drop " by **A.K.Bhattacharya** has been published in The Telegraph, Calcutta, 13 April, 2002.
- O.4. Paper entitled “Preparing for GATE” by **A.K.Bhattacharya** has been published in The Statesman, Kolkata, 6 November, 2005. Page 5.
- O.5. Interview entitled “Bhugarbhashta jale samudrik jaler anuprabesh : Prathamangsha” (Seawater intrusion in groundwater : Part 1) telecast on ATN Kolkata television channel on 18/12/2005 (in Bengali).
- O.6. Interview entitled “Bhugarbhashta jale samudrik jaler anuprabesh : Dwitiangsha” (Seawater intrusion in groundwater : Part 2) telecast on ATN Kolkata television channel on 20/12/2005 (in Bengali).
- O.7. Paper entitled “After the JEE” by **A.K.Bhattacharya** has been published in afterthejee.rediffblogs.com on 3 January, 2006.
- O.8. Article entitled “The probable path of saline water ingress in coastal aquifers of Purba Midnapur, West Bengal, India” by **A.K.Bhattacharya** has been published in salinewaterintrusion.rediffblogs.com on 5 January, 2006.

- O.9. Article entitled “Land subsidence in Kolkata and Bangkok” by **A.K.Bhattacharya** has been published in ccubkk.rediffblogs.com on 18 January, 2006.
- O.10. Article entitled “Saline water intrusion into coastal Nigeria” by H.O.Nwankwoala and **A.K.Bhattacharya** and has been published in nigeriansalineintrusion.rediffblogs.com on 18 January, 2006.
- O.11. Article entitled “Saline water intrusion, Nigeria” by **A.K.Bhattacharya** has been published in salineintrusioninnigeria.rediffblogs.com on 19 January, 2006.
- O.12. Article entitled “Stage-discharge relationship for compound channels having straight and curved planforms” by **A.K.Bhattacharya** has been published in stagedischarge.rediffblogs.com on 27 January, 2006.
- O.13. Article entitled “Indian east coast – saline water intrusion” by **A.K.Bhattacharya** has been published in eastindiansalineintrusion.rediffblogs.com on 4 March, 2006.
- O.14. Lecture entitled “The water resources model SIMGRO : An overview” by **A.K.Bhattacharya** has been delivered at the Paper Meeting of the American Society of Civil Engineers – India Section on 20 April, 2006.
- O.15. Lecture entitled “The water resources model BILAN” by **A.K.Bhattacharya** has been delivered at Bengal Engineering and Science University, Shibpur on 11 July, 2006.
- O.16. Invited Lecture entitled “Groundwater depletion and associated land subsidence in Kolkata” by **A.K.Bhattacharya** has been delivered at the Indian Institute of Technology Bombay, Mumbai on 5 March, 2007.
- O.17. Lecture entitled “Flow in Qanats” by **A.K.Bhattacharya** has been delivered at the Paper Meeting of the American Society of Civil Engineers – India Section on 16 August, 2007.
- O.18. Invited Lecture entitled “Flood forecasting and early warning system” by **A.K.Bhattacharya** has been delivered at the Nepal Engineering College, Kathmandu, Nepal on 24 May, 2010.
- O.19. Invited Lecture entitled “Effect of very mild random tremors on saturated sub-surface flow” by **A.K.Bhattacharya** has been delivered at the Nepal Engineering College, Kathmandu, Nepal on 28 December, 2012.
- O.20. Keynote Address entitled “Saline water intrusion in coastal aquifers of Bangladesh” by **A.K.Bhattacharya** has been delivered at the 32nd and 33rd AHI National Seminar on “Water Resources” with a colloquium on ‘Interlinking of Rivers with Special Reference to Andhra Pradesh’ held at Visakhapatnam during 10-11 July, 2015.
- O.21. Article entitled “Preparing for competitive examinations” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 5 October, 2015.
- O.22. Paper entitled “DOs et DO NOTs pour les Startups en Génie Civil” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 21 December, 2015.
- O.23. Paper entitled “L'éthique Professionnelle pour les Ingénieurs Civils” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 21 December, 2015.
- O.24. Paper entitled “Construire de Meilleures Hauteur-Débit Note Courbes” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 21 December, 2015.
- O.25. Keynote Address entitled “Forensic Civil Engineering” by **A.K.Bhattacharya** has been delivered at the International Conference on Forensic Civil Engineering (FCE-2016) held at Nagpur during 21-23 January, 2016.
- O.26. “Message to FCE-2016” by **A.K.Bhattacharya** has been published in the Proceedings of the International Conference on Forensic Civil Engineering (FCE-2016) held at Nagpur during 21-23 January, 2016.
- O.27. Keynote Address entitled “Saline water intrusion into coastal aquifers” by **A.K.Bhattacharya** has been delivered at the Sixth International Groundwater Conference held at Chennai during 11-13 February, 2016.
- O.28. Keynote Address entitled “On shaky ground – Earthquake-induced soil-groundwater interactions” by **A.K.Bhattacharya** has been delivered at the First Indian National Groundwater Conference held at Hyderabad during 5-7 October, 2016.
- O.29. Paper entitled “A primer to quantitative aptitude tests” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 21 October, 2016.
- O.30. Paper entitled “Preparing for GATE” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 22 October, 2016.
- O.31. Paper entitled “Some guidelines to preparing for CAT” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 22 October, 2016.

- O.32. Paper entitled “After the JEE” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 22 October, 2016.
- O.33. Paper entitled “Advanced guidelines for preparing for CAT” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 8 November, 2016.
- O.34. Paper entitled “Advanced guidelines for preparing for GATE and CAT” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 9 November, 2016.
- O.35. “Message to REDECON-2016” by **A.K.Bhattacharya** has been published in the Proceedings of the International Conference on Recent Developments in Design and Construction Technologies of Tall Structures (REDECON-2016) held at Bangalore during 9-12 November, 2016.
- O.36. Paper entitled “Advanced guidelines for choosing a stream after the JEE and for preparing for GATE and CAT” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> on 22 November, 2016.
- O.37. “Message to COMPASS-2018” by **A.K.Bhattacharya** has been published in the Proceedings of the National Conference on Advances in Surveying and Mapping Technologies (COMPASS-2018) held at Nagpur during 9-10 February, 2018.
- O.38. “Message to REDECON-2018” by **A.K.Bhattacharya** has been published in the Proceedings of the International Conference on Recent Developments in Design and Construction Technologies of Tall Structures (REDECON-2018) held at Bangalore during 21-23 February, 2018.
- O.39. “Message to INFRA CE-2018” by **A.K.Bhattacharya** has been published in the Proceedings of the National Convention on Sustainable Urbanisation (INFRA CE-2018) held at Nashik during 27-28 July, 2018.
- O.40. Paper entitled “Simplifying Defluoridation - The SuperFloc System” by **A.K.Bhattacharya** and M.Nitzsche has been published on The Water Network on 5 December, 2018.
- O.41. “Message to RACE-2019” by **A.K.Bhattacharya** is going to be published in the Proceedings of the National Conference on Recent Advances in Civil Engineering (RACE-2019) held at Mysore during 18-19 January, 2019.
- O.42. “Message to National Seminar on Global Trends in Concrete-Steel Composite Structures Design and Construction” by **A.K.Bhattacharya** is going to be published in the Proceedings of the National Seminar on Global Trends in Concrete-Steel Composite Structures Design and Construction scheduled to be held at Bangalore during 10-11 May, 2019.

27. Journal Editorships and Papers and Sponsored Project Proposals reviewed :

Served as a Reviewer for the International Conference on Advances in Civil Engineering held during 3–5 January, 2002, at Indian Institute of Technology, Kharagpur;

Serving as a Reviewer for the Journal of Spatial Hydrology;

Serving as a Reviewer for the Journal of Flood Engineering;

Serving as an Editor of the International Journal Series in Engineering Science (IJSES);

Serving as an Associate Editor of the International Journal of Ecology and Development;

Serving as an Associate Editor of the AGGS Journal of Groundwater Research (AGGS JGWR);

Serving as a Member of the Advisory Board of the Bulletin of the Association of Consulting Civil Engineers (India);

Serving as an Editorial Board Member of the Journal, Current Research in Hydrology and Water Resources;

Serving as an Editorial Board Member of the International Journal Geology and Mining;

Serving as an Editorial Board Member of the Journal of Chemical Engineering and Materials Science;

Serving as a Reviewer for the Journal of Technology, Bengal Engineering and Science University, Shibpur;

Served as a Reviewer for the International Conference on Structural and Road Transportation Engineering held during 3-5 January, 2005, at Indian Institute of Technology, Kharagpur;

Serving as a Member of the Editorial Board of the International Journal of Research and Reviews in Applied Sciences;

Serving as a Reviewer for relevant conferences and journals of the World Scientific and Engineering Academy and Society;

Serving as a Reviewer for the Journal, Bulletin of Engineering Geology and the Environment published by Springer;

Serving as a Reviewer for the Journal, Water Management, Proceedings of the Institution of Civil Engineers, United Kingdom;

Serving as a Reviewer for the Journal, Structures and Buildings, Proceedings of the Institution of Civil Engineers, United Kingdom;

Serving as a Reviewer for the Journal, Science of the Total Environment published by Elsevier;

Serving as a Reviewer for the Journal of Hydro-environment Research published by Elsevier;

Serving as a Reviewer for the Journal of Environmental Management published by Elsevier;

Serving as a Reviewer for the Journal of Industrial and Engineering Chemistry published by Elsevier;

Serving as a Reviewer for the Hydrological Processes Journal published by the International Association of Hydrological Sciences;

Serving as a Reviewer for the Journal of the American Water Resources Association;

Serving as a Reviewer for the Journal, Environmental Modeling and Assessment;

Serving as a Reviewer for the International Journal of Water Resources and Environmental Engineering;

Serving as a Reviewer for the International Journal of Physical Sciences;

Serving as a Reviewer for the International Research Journal of Public and Environmental Health;

Serving as a Reviewer for the Journal of Geography and Regional Planning;

Serving as a Reviewer for the Journal of Geology and Mining Research;

Serving as a Reviewer for the Journal, Construction Materials, Proceedings of the Institution of Civil Engineers, United Kingdom;

Serving as a Reviewer for the Journal, Advances in Cement Research, Proceedings of the Institution of Civil Engineers, United Kingdom;

Serving as a Reviewer for the Archives of Mechanical and Machinery Engineering, International Journal Series in Engineering Science (IJSES);

Serving as a Reviewer for the Journal, Scientific Research and Essays;

Serving as a Reviewer for the Journal, Estuarine, Coastal and Shelf Science;

Serving as a Reviewer for the Journal, Geomechanics and Engineering;

Serving as a Reviewer for the Journal of Soil Science and Environmental Management;

Serving as a Reviewer for the Journal of Earth System Science;

Serving as a Reviewer for the Arabian Journal of Geosciences;

Serving as a Reviewer for the Arabian Journal of Chemistry;

Serving as a Reviewer for the Journal of Water and Climate Change;

Serving as a Reviewer for the International Journal of Educational Policy Research and Review;

Serving as a Reviewer for the Journal of Chemical Engineering and Materials Science;

Serving as a Reviewer for the Journal of Food Quality;

Serving as a Reviewer for the Journal, Current Science;

Serving as a Reviewer for the Journal, Inorganic and Physical Chemistry;

Serving as a Member of the Editorial Board of the International Journal of Civil Engineering;

Serving as a Member of the Editorial Board of the Journal of Civil Engineering;

Serving as a Reviewer for the Journal of The Institution of Engineers (India) : Series A published by Springer;

Serving as a Reviewer for the World Research Journal of Agricultural Sciences;

Serving as a Reviewer for the African Journal of Agricultural Research;

Serving as a Reviewer for the African Journal of Environmental Science and Technology;

Serving as a Reviewer for the Journal of Civil Engineering and Construction Technology;

Serving as a Reviewer for Sponsored Project Proposals submitted to the Netherlands Organisation for Scientific Research;

Serving as a Reviewer for Sponsored Project Proposals submitted to the European Innovation Partnership on Water;

Served as a Reviewer for the International Conference on Civil Engineering in the New Millennium: Opportunities and Challenges held during 11-14 January, 2007, at Bengal Engineering and Science University, Shibpur, Howrah;

Served as a Reviewer for the 34th Biennial Congress of the International Association of Hydraulic Engineering and Research held during 26 June to 1 July, 2011, at Brisbane, Australia;

Served as a Reviewer for the Indian Geotechnical Conference held during 18-20 December, 2014, at Kakinada, Andhra Pradesh;

Serving as a Reviewer for the International Conference on Computational Intelligence and Data Analytics (ICCIDA-2018) scheduled to be held during 26-27 October, 2018, at Gandhi Institute For Technology (GIFT), Bhubaneswar.

28. Theses Supervised at Masters and Doctoral levels and other Significant Research Supervision:

(a) Masters Level :

Name of the Student	Completed/ Ongoing	Title of Thesis	Co-Supervisor, if any
Arindam Sarkar	Completed in January, 2001	Reduction of Local Scour around Non-cylindrical Bridge Pier using Structural Device	
Avijit Sarkar	Completed in February, 2002	Reduction of Local Scour around Non-cylindrical Bridge Pier at High Angles of Attack using Structural Device	Dr. G. Bhattacharya Assistant Professor, Department of Civil Engineering, Bengal Engineering College (Deemed University)
Surojit Basu	Completed in February, 2002	Evaluation of Local Scour around Spurs in Open Channel	Dr. G. Bhattacharya Assistant Professor, Department of Civil Engineering, Bengal Engineering College (Deemed University)
Sumit Choudhury	Completed in February, 2002	Evaluation of Seepage under Sheet-Pile using the Finite Element Method with Six-Noded Triangular Elements	Dr. S. Maji Assistant Professor, Department of Applied Mechanics, Bengal Engineering College (Deemed University)
Debasish Dewan	Completed in January, 2003	Some Studies on Velocity and Pressure Distributions in Meandering Channels of Simple and Compound Cross-Section and on Meander Migration	
Pranay Kumar Mohapatra	Completed in January, 2005	Linear and Non-Linear Flow of Sodium Chloride Solutions of Different Concentrations through a Granular Porous Medium	Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Mrinmoy Debnath	Completed in July, 2005	Analysis of Darcy and Forchheimer Flow through Unconfined Aquifer due to Groundwater Extraction from Single and Multiple Wells and Associated Land	Dr. S. Basack Lecturer, Department of Applied Mechanics,

		Subsidence	Bengal Engineering and Science University, Shibpur
Sujoy Kumar Sarkar	Completed in July, 2005	Reduction of Local Scour around Non-cylindrical Bridge Pier using Upstream Piles	Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Sankar Sarkar	Completed in July, 2005	Analysis and Control of Saline Water Intrusion in Purba Midnapur, West Bengal, India	Dr. S. Maji Professor, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Bishwanath Mahato	Completed in July, 2007	Characterisation of Flow Structures due to Aquatic Vegetation of Different Morphologies and Densities in Naturally-Occurring Open Channels	Dr. K. Debnath Assistant Professor, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Chitta Sahana	Completed in July, 2008	A Mathematical and Experimental Study of Flow Characteristics of Stratified Fluid	Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Laksmi Kanta Paira	Completed in July, 2009	Analysis of Water-Content Fluctuation induced Swelling and Shrinkage of Soil	
Debasish Kumar	Completed in July, 2010	Analysis of Various Groundwater–Soil Interaction Problems using Six–Noded Triangular Finite Elements	
Anindya Basu	Completed in July, 2011	Development of BILAN++ using seamlessly-blended pre- and post-processors	

(b) **Doctoral Level :**

Name of the Student	Completed/ Ongoing	Title of Thesis	Co-Supervisor, if any
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Monindra Nath Patra	Completed	Localised and General Ground Surface Subsidence and Swelling due to Change in Groundwater Piezometric Level with a Special Reference to Calcutta	
Debabrata Kar	Completed	Arresting Project Slippage in Water Resources Projects applying Innovative Techniques	Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Prabir Maity	Completed	Saline Water Intrusion and Control in Coastal Aquifers of the East Coast of India	Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Laksmi Kanta Paira	Completed	Analysis of Water-Content Fluctuation induced Swelling and Shrinkage of Soil and its Control using Various Admixtures	Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur
Debasish Kumar	Completed	Analysis of Various Groundwater–Soil Interaction Problems using Finite Elements of Different Configurations	
Chitta Sahana	Completed	Mathematical Modelling of Saline Water Intrusion and Control in Coastal Aquifers	

(c) **Post-Doctoral Level :**

Name of the Student	Completed/ Ongoing	Nature of Research	Parent Institution
Dr. (Mrs.) Rajashree Lodh	Ongoing	Post-Doctoral Research	Dr. (Mrs.) Rajashree Lodh is an Assistant Professor at Heritage Institute of Technology, Kolkata

(d) **Other Significant Research Supervision (Internships under the MultiSpectra Edge scheme) :**

Name of the Student	Completed/ Ongoing	Nature of Research	Parent Institution
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Katakuri Arun Kumar	Completed	Summer Internship in 2015	Indian Institute of Technology, Bhubaneswar
Ravula Rakesh	Completed	Summer Internship in 2015	Indian Institute of Technology, Bhubaneswar
Bhukya Bharath Naik	Completed	Summer Internship in 2015	Indian Institute of Technology, Bhubaneswar
Shaik Rizwana	Completed	Summer Internship in 2015	Indian Institute of Technology, Bhubaneswar
Akshat Chandanam	Completed	Summer Internship in 2015	Indian Institute of Technology, Kharagpur
Akshay Thakur	Completed	Summer Internship in 2015	Indian Institute of Technology, Kharagpur
Rahul Meena	Completed	Summer Internship in 2015	Indian Institute of Technology, Kharagpur
D.M.P. Karthik	Completed	Internship in 2015	
Ankur Gautam	Completed	Summer Internship in 2016	Indian Institute of Technology, Kanpur
Piyush Kumar Singh	Completed	Summer Internship in 2016	Indian Institute of Technology, Kharagpur
Ajit Sharma	Completed	Summer Internship in 2016	Indian Institute of Technology, Kharagpur
Kumar Srinivas	Completed	Summer Internship in 2016	Indian Institute of Technology, Kharagpur
Deep Saha	Completed	Summer Internship in 2017	Techno India College of Technology, Kolkata
B. Anup Nikhil	Completed	Summer Internship in 2017	SRM University, Chennai
Kumar Daksh	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Varsha Kumari	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Sweta Kumari	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Jyoti Mishra	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi

Pankaj Kumar	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Anurag	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Namrata Priya	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Nishant Tiwari	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Ashif Ali Khan	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi
Babai Hela	Completed	Summer Internship in 2018	Central University of Jharkhand, Ranchi

(e) ***Other Significant Research Supervision (Open Internships under the MultiSpectra Edge scheme) :***

Name of the Student	Completed/ Ongoing	Nature of Research	Parent Institution
D.M.P. Karthik	Ongoing	Open Internship	
Rahul Meena	Ongoing	Open Internship	Indian Institute of Technology, Kharagpur
Piyush Kumar Singh	Ongoing	Open Internship	Indian Institute of Technology, Kharagpur
Ajit Sharma	Ongoing	Open Internship	Indian Institute of Technology, Kharagpur
Kumar Srinivas	Ongoing	Open Internship	Indian Institute of Technology, Kharagpur
Deep Saha	Ongoing	Open Internship	Techno India College of Technology, Kolkata
B. Anup Nikhil	Ongoing	Open Internship	SRM University, Chennai
Anjan Goswami	Ongoing	Open Internship	
Sangameshwar Patil	Ongoing	Open Internship	

Prabir Maity	Ongoing	Open Internship	
Swarup Dandapat	Ongoing	Open Internship	
Debasish Kumar	Ongoing	Open Internship	
Kumar Daksh	Ongoing	Open Internship	Central University of Jharkhand, Ranchi
Varsha Kumari	Ongoing	Open Internship	Central University of Jharkhand, Ranchi
Sweta Kumari	Ongoing	Open Internship	Central University of Jharkhand, Ranchi
Pankaj Kumar	Ongoing	Open Internship	Central University of Jharkhand, Ranchi
Anurag	Ongoing	Open Internship	Central University of Jharkhand, Ranchi
Anshul Yadav	Ongoing	Open Internship	Indian Institute of Technology, Kanpur
Abhay Kumar Mishra	Ongoing	Open Internship	Indian Institute of Technology, Kanpur
Shubhapriya Haldar	Ongoing	Open Internship	
Subhashis Chaudhury	Ongoing	Open Internship	

29. Workshops etc. Organised :

Organised a workshop entitled “Workshop on River Hydraulics” during 6 – 8 September, 1995, at Bengal Engineering College (Deemed University) with the official designation of Convener of the Organising Committee (Funding agencies : All India Council for Technical Education, Ministry of Human Resource Development, Government of India, New Delhi and Department of Science and Technology, Government of West Bengal, Calcutta);

Served as a Member of the Organising Committee of seminars held at Bengal Engineering College (Deemed University) on the occasion of Water Resources Day in different years, the topics and dates of the Seminars being mentioned below :

Seminar on “Water Management – Need of Public Awareness, 30 May, 1995;

Seminar on “Inter – Basin Transfer of Water for National Development – Problems and Prospects” – 24 July, 1996;

Seminar on “River Basin Management – Issues and Options” – 28 May, 1997;

Seminar on “Five Decades of Water Resources Development in India” 10 June, 1998.

Served as Member of the Organising Committee of Symposium on Biomechanics held at Bengal Engineering College (Deemed University) on 15 March, 1997, a Member of the Organising Committee of National Conference on Biomechanics held at Bengal Engineering and Science University, Shibpur during 15-17 December, 2006 and a Member of the Seminar Sub – Committee of 24th National Conference on Fluid Mechanics and Fluid Power held at Bengal Engineering College (Deemed University) during 24-27 December, 1997;

Served as a Member of the Food and Accommodation Committee of the 38th Congress of the Indian Society of Theoretical and Applied Mechanics held at Indian Institute of Technology, Kharagpur, during 9 – 12 December, 1993;

Served as Member of the Souvenir Sub-Committee of the Sixth West Bengal State Science and Technology Congress held at Bengal Engineering College (Deemed University) during 28 February – 1 March, 1999;

Served as Member, Organising Committee, All India Seminar on Structures in the 21st Century organised by the American Society of Civil Engineers – India Section held at Calcutta during 8 – 9 December, 2000 and as Member, Organising Committee, All India Seminar on Natural Disasters and Civil Engineering Solutions organised by the American Society of Civil Engineers – India Section held at Calcutta during 7 – 8 December, 2001;

Served as Member, Organising Committee, Association of Consulting Civil Engineers (India) Annual Convention 2002 and National Seminar on Recent Challenges in Civil Engineering organised by the Association of Consulting Civil Engineers (India) held at Hyderabad during 21-22 June, 2002;

Served as Member, Organising Committee, All India Seminar on Improving Transportation in a Congested Metropolitan City organised by the American Society of Civil Engineers – India Section held at Calcutta during 13-14 December, 2002;

Served as Member, Organising Committee, Association of Consulting Civil Engineers (India) Annual Convention 2003 and National Seminar on Smart Materials, Intelligent Buildings and Structures organised by the Association of Consulting Civil Engineers (India) held at Bangalore during 19-21 June, 2003;

Served as Member, Organising Committee, National Seminar on Construction Industry for Infrastructure Development organised by the American Society of Civil Engineers – India Section held at Kolkata during 4 December, 2003;

Served as Member, National Organising Committee, Association of

Consulting Civil Engineers (India) Annual Convention 2004 and National Conference on Green Building Concepts organised by the Association of Consulting Civil Engineers (India) held at Madurai during 17-19 June, 2004;

Served as Member, Organising Committee, All India Seminar on Geotechnical Aspects of Civil Engineering organised by the American Society of Civil Engineers – India Section held at Kolkata during 10-11 December, 2004;

Served as Member, Organising Committee, Association of Consulting Civil Engineers (India) National Seminar and Annual Convention on Project Management Emerging Trends held at Bangalore during 16-18 June, 2005;

Served as Member, Organising Committee, International Conference on Crisis Management in Water and Environment held at Kolkata during 15-16 July, 2005;

Served as Member, Organising Committee, All India Seminar on Utilisation of Skyways and Subways in the Cities of India organised by the American Society of Civil Engineers – India Section held at Kolkata during 9-10 December, 2005;

Served as Member, Organising Committee, All India Seminar on Infrastructure Development as related to Poverty Alleviation organised by the American Society of Civil Engineers – India Section at Kolkata during 8-9 December, 2006;

Served as Member, Organising Committee and Seminar Committee and Programme Co-Ordination Sub-Committee, International Conference on Civil Engineering in the New Millennium: Opportunities and Challenges held at Bengal Engineering and Science University, Shibpur, Howrah during 11-14 January, 2007;

Served as Member, Organising Committee, All India Seminar on Urbanisation in the present Global Scenario organised by the American Society of Civil Engineers – India Section at Kolkata during 7-8 December, 2007;

Served as Member, Organising Committee, All India Seminar on Emerging Trends in Civil Engineering Materials organised by the American Society of Civil Engineers – India Section at Kolkata during 5-6 December, 2008;

Served as Member, Organising Committee, All India Seminar on Ethics in Civil Engineering organised by the American Society of Civil Engineers – India Section at Kolkata during 4-5 December, 2009;

Served as Member, Organising Committee, Seminar on Industry Institute Interaction held at Bengal Engineering and Science University, Shibpur, Howrah on 28 September, 2012;

Served as Chairman, Organising Committee, Weekend Training Course and Executive Training Course in Software Applications in Hydraulics, Hydrology and Water Resources Engineering held at Kolkata during July, August, September and October, 2015;

Served as Member, Organising Committee, International Conference on Forensic Civil Engineering (FCE-2016) held at Nagpur during 21-23 January, 2016;

Served as Member, Organising Committee, Sixth International Groundwater Conference held at Chennai during 11-13 February, 2016;

Served as Member, Organising Committee, Fifth International Conference on Ecotoxicology and Environmental Sciences (ICEES-2016) held at Kochi during 15-17 February, 2016;

Served as Member, Organising Committee, Association of Consulting Civil Engineers (India) Foundation Day and Awards Ceremony held at Bangalore on 30 April, 2016;

Served as Member, Organising Committee, Conference on Professional Delivery Systems in the Indian Construction Industry – a futuristic view held at Coimbatore during 22-23 July, 2016;

Served as Member, Organising Committee, First Indian National Groundwater Conference held at Hyderabad during 5-7 October, 2016;

Served as Member, Organising Committee, International Conference on Recent Developments in Design and Construction Technologies of Tall Structures (REDECON-2016) held at Bangalore during 9-12 November, 2016;

Served as Member, Organising Committee, National Seminar - "ON MAKING MY INDIA - THE WAYS AHEAD From A Civil Engineer's Perspective" held at Mangalore during 28-29 July, 2017;

Served as Member, Organising Committee, Seventh International Groundwater Conference held at New Delhi during December, 2017;

Served as Member, Organising Committee, National Conference on Advances in Surveying and Mapping Technologies (COMPASS-2018) held at Nagpur during 9-10 February, 2018;

Served as Member, Organising Committee, Sixth International Conference on Ecotoxicology and Environmental Sciences (ICEES-2018) held at New Delhi during 19-21 February, 2018;

Served as Member, Organising Committee, International Conference on Recent Developments in Design and Construction Technologies of Tall Structures (REDECON-2018) held at Bangalore during 21-23 February, 2018;

Served as Member, Organising Committee, National Convention on Sustainable Urbanisation (INFRA CE-2018) held at Nashik during 27-28 July, 2018;

Served as Member, Organising Committee, Second Indian National Groundwater Conference held at Jalgaon during December, 2018;

Served as Member, Organising Committee, National Conference on Recent Advances in Civil Engineering (RACE-2019) held at Mysore during 18-19 January, 2019;

Serving as Member, Organising Committee, National Seminar on Global Trends in Concrete-Steel Composite Structures Design and Construction scheduled to be held at Bangalore during 10-11 May, 2019;

Serving as Member, Organising Committee, Eighth International Groundwater Conference scheduled to be held at Roorkee during 21-24 October, 2019.

30. New Courses developed at Bengal Engineering and Science University, Shibpur :

- (a) at Undergraduate level : Water Power Engineering (AM 805)
- (b) at Post-graduate level : Water Power Engineering I (AM 917)
Water Power Engineering II (AM 1017)

Theoretical subjects taught at Bengal Engineering and Science University, Shibpur, (including courses developed) :

Subject Taught:	Undergraduate /Post-graduate	Lecture-Tutorial-Practical	Semester
Engineering Mechanics (AM 201)	Undergraduate	3-1-0	2nd Semester BE
Fluid Mechanics I (AM 302)	Undergraduate	3-1-0	3rd Semester BE
Fluid Mechanics and Fluid Machines (AM 306)	Undergraduate	3-1-0	3rd Semester BE
Hydraulics and Hydraulic Machines (AM 405)	Undergraduate	3-1-0	4th Semester BE
Fluid Mechanics and Fluid Machines (AM 406)	Undergraduate	3-1-0	4th Semester BE
Water Power Engineering (AM 805)	Undergraduate	3-1-0	8th Semester BE (Elective III)
Advanced Mechanics of Fluids I (AM 906)	Post-graduate	4-1-0	1st Semester ME
Theory of Hydraulic Models I (AM 908)	Post-graduate	4-1-0	1st Semester ME
Open Channel Hydraulics I (AM 913)	Post-graduate	4-1-0	1st Semester ME
Groundwater Flow I (AM 915)	Post-graduate	4-1-0	1st Semester ME
Water Power Engineering I (AM 917)	Post-graduate	4-1-0	1st Semester ME

Advanced Mechanics of Fluids II (AM 906)	Post-graduate	4-0-0	2nd Semester ME
Theory of Hydraulic Models II (AM 1008)	Post-graduate	4-0-0	2nd Semester ME
Open Channel Hydraulics II (AM 1013)	Post-graduate	4-0-0	2nd Semester ME
Groundwater Flow II (AM 1015)	Post-graduate	4-0-0	2nd Semester ME
Water Power Engineering II (AM 1017)	Post-graduate	4-0-0	2nd Semester ME
Finite Element Methods in Fluids (AM 1037)	Post-graduate	4-0-0	2nd Semester ME

31. Languages known :

Language	Read	Write	Speak
English	Fluently	Fluently	Fluently
Hindi	Fluently	Fluently	Fluently
Bengali	Fluently	Fluently	Fluently
French	Fluently	Fluently	Fluently
Urdu	Fluently	Fluently	Fluently
German	Fairly well	Fairly well	Fairly well

Medium of instruction has been English throughout;

Passed a course in French at Indian Institute of Technology, Kharagpur which was taken to satisfy the humanities requirement for the Ph.D. Degree;

Passed a course in Advanced French at the Alliance Française de Calcutta;

Other scripts read but languages not understood : Cyrillic, Greek, Arabic.

32.(a) Sponsored Projects as Principal Investigator :

Project Title	Budget	Status
Analysis and Control of Saline Water Intrusion in Coastal Aquifers with Special Emphasis on East Coast of India.	INR 300000/-	Completed. Had been sanctioned by the All India Council for Technical Education, Ministry of Human Resources Development,

		Government of India. (Sanction Letter No. 8022/RID/NPROJ/RPS-82-4 dated 22/3/2004)
Groundwater Quality and Quantity in the Aquifer underlying Kolkata	INR 350000/-	Completed.
Field Construction and Use of Shallow Crossed Horizontal Wells cum Riser Groundwater Extraction Structure for Reliable and Consistent Supply of Fresh Water in Coastal Areas		Submitted to the Ministry of Agriculture, Government of India.
Field Construction and Use of Shallow Crossed Horizontal Wells cum Riser Groundwater Extraction Structure for Reliable and Consistent Supply of Fresh Water in Coastal Areas		Submitted to the Carbon Zero Challenge 2019, Ministry of Human Resources Development, Government of India.

(b) Sponsored Projects as Co-Investigator and Member, Project Evaluation Committee :

Project Title	Budget and Principal Investigator	Status
Degradation of Soil Resistance for Soil Pile Interaction under Lateral Cyclic Loading	INR 850000/- Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur	Completed. Had been sanctioned by the University Grants Commission, New Delhi, India. (Sanction Letter No.F.30-250/2004 (SR) dated 58/11/2004)

(c) Sponsored Projects as Member of the Project Execution/Evaluation Committee :

Project Title	Budget and Coordinator	Status
Fund for Improvement of Science and Technology Infrastructure (FIST)	INR 9750000/- Dr. J.K.Chakraborty Professor and Head, Department of Applied Mechanics, Bengal Engineering and	Completed Had been sanctioned by the Department of Science and Technology, Government of India.

	Science University, Shibpur	
Career Award for Young Teachers	INR 450000/- Dr. S. Basack Lecturer, Department of Applied Mechanics, Bengal Engineering and Science University, Shibpur	Completed. Had been sanctioned by the All India Council for Technical Education, Ministry of Human Resources Development, Government of India.

33. Major Consultancy works done :

Registered as a Consultant (Consultant Code 021147) with the Asian Development Bank under the DICON Scheme;

Empanelled as an Arbitrator with The Institution of Engineers (India);

MultiSpectra Consultants is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0001890;

MultiSpectra Global, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0011100;

MultiSpectra Consultants Asia, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0002852;

MultiSpectra Technologies, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0011100;

MultiSpectra Aqua, a wholly-owned subsidiary of MultiSpectra Consultants, is registered with the Ministry of Micro, Small and Medium Enterprises, Government of India, and bears Udyog Aadhaar Number WB10D0011725;

MultiSpectra, Inc., MultiSpectra Bangladesh and MultiSpectra Tripura are wholly-owned subsidiaries of MultiSpectra Consultants;

MultiSpectra Consultants, MultiSpectra Global, MultiSpectra Consultants Asia, MultiSpectra Technologies, MultiSpectra Aqua, MultiSpectra, Inc., MultiSpectra Bangladesh and MultiSpectra Tripura constitute the Diwan Bahadur Banga Chandra - Dr. Amartya Kumar Bhattacharya Group of Companies;

MultiSpectra Consultants bears a ZED ID of ZEDQCI396941 with the Ministry of Commerce and Industry, Government of India;

MultiSpectra Consultants has a Permanent Account Number (PAN) of ADTPB5006B and a Tax Deduction and Collection Account Number (TAN) of CALA23411D with the Income Tax Department, Government of India;

MultiSpectra Consultants has a Goods and Services Tax Number (GSTIN) of 19ADTPB5006B1ZW with the Central Board of Indirect Taxes and Customs, Department of Revenue, Ministry of Finance, Government of India;

MultiSpectra Consultants is a registered Training Partner of the National Skill Development Corporation, Ministry of Skill Development and Entrepreneurship, Government of India;

MultiSpectra Consultants has been accorded the status of a Recognised Startup by the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India;

MultiSpectra Consultants is registered with the Micro, Small and Medium Enterprises Department, Government of Odisha, India;

MultiSpectra Consultants is registered as an Offshore Company with Government of United Arab Emirates;

MultiSpectra Consultants is registered with the Ministry of Industry, Government of Nepal, under Company Category 0200;

MultiSpectra Consultants is a Member of the Startup Europe Partnership (SEP);

MultiSpectra Consultants is a Member of the Startup Europe India Network (SEU-IN);

MultiSpectra Consultants is a Member of Startup Lithuania, Startup Canada and Startup Thailand;

MultiSpectra Consultants is a Member of the Open Invention Network and the LOT Network;

MultiSpectra Consultants is a Member of the World Intellectual Property Organization and is enlisted in the database of experts in WIPO (World Intellectual Property Organization) GREEN;

MultiSpectra Consultants is a Member of the Indian Institute of Management Kozhikode Laboratory for Innovation Venturing and Entrepreneurship (IIMK LIVE);

MultiSpectra Consultants is a Member of the India Brand Equity Foundation;

MultiSpectra Consultants is a Patron Member of the Confederation of Micro, Small and Medium Enterprises, Federation of Indian Chambers of Commerce and Industry;

MultiSpectra Consultants is a Member of the National Association of Software and Services Companies (NASSCOM);

MultiSpectra Consultants is a Member of the Association of Micro, Small and Medium Enterprises in Information Technology (AIM-IT);

MultiSpectra Consultants is a Member of Laghu Udyog Bharati;

MultiSpectra Consultants is a Member of the Federation of Small and Medium Industries (FOSMI);

MultiSpectra Consultants is the recipient of a Certificate of Appreciation from the Indian Institute of Management Calcutta Innovation Park and the Department of Science and Technology, Government of India, for being one of the winning startups in the 'SMART FIFTY 50 Solutions to Transform India' contest;

MultiSpectra Consultants is the recipient of two awards, one given by Amazon Web Services and the other given by IBM, for innovation in engineering;

MultiSpectra Consultants is an Affiliate of Microsoft, Google, Adobe, Amazon, Corel, Oracle, IBM, Bentley Systems, Cisco, Citrix, WinRAR, Aqua-Aero Watersystems BV and other global companies;

Dr. Amartya Kumar Bhattacharya is a registered Consultant to the National Skill Development Corporation, Ministry of Skill Development and Entrepreneurship, Government of India;

Dr. Amartya Kumar Bhattacharya is registered as a Mentor in the Indian Institute of Management Calcutta Innovation Park, in NSRCEL, Indian Institute of Management Bangalore, and in the Special Interest Group on "Innovation and Entrepreneurship" of the Computer Society of India;

Dr. Amartya Kumar Bhattacharya is a registered Consultant to MSME (Micro, Small and Medium Enterprises) Helpline;

Dr. Amartya Kumar Bhattacharya is a Mentor to the Startup Europe Partnership (SEP);

Dr. Amartya Kumar Bhattacharya is an Ambassador of the Startup Europe India Network (SEU-IN);

Dr. Amartya Kumar Bhattacharya is an Honorary Advisor to the Engineering Council of India, to the Construction Industry Development Council and to the Quality Council of India;

Dr. Amartya Kumar Bhattacharya is empanelled as an Expert with the All India Council for Technical Education;

Dr. Amartya Kumar Bhattacharya is an Honorary Advisor to the Construction Industry Development Council and to the Quality Council of India;

Dr. Amartya Kumar Bhattacharya is registered as a Professional with msmmentor.in with Code Number 1026406.

Period	Organisation	Nature of Work
September, 2002 to March, 2003	Centre for Advanced Research and Testing on Environmental Quality and Water, 22/10, Yusuf Sarai, (2nd Floor), New Delhi – 110 016, India. Phone: +91-11-2616-7527 Facsimile: +91-11-2616-7527	Hydrological Investigation and Planning for a Low-head Hydro-electric Project near Hardwar in Uttaranchal, India
March, 2004 to present	Executive Engineer, Tamluk, Public Health Engineering Directorate, Government of West Bengal, India.	Investigation on Emergence of Saline Water and Prescription of Remedial Measures thereof for Deep Tubewells of Coastal Areas of Purba Midnapur District, West Bengal, India
1st February, 2006 to 31st March, 2006	Benchmark Developers Private Limited, Sector V, Salt Lake, Kolkata – 700 102, West Bengal, India.	Design of a Drainage System of a Part of New Town, Rajarhat, Kolkata, West Bengal, India
1st February, 2006 to present	Benchmark Developers Private Limited, Sector V, Salt Lake, Kolkata – 700 102, West Bengal, India.	Design of Several Buildings in New Town, Rajarhat, Kolkata, West Bengal, India

<p>10th April, 2016 to present</p>	<p>Task Force to Monitor the Saline Water Intrusion into Coastal Aquifers of the East Coast of India (TFOR - SALTINTRUS).</p>	<p>Chairman</p>
<p>1st August, 2009 to 31st January, 2014</p>	<p>MultiSpectra Consultants, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India. E-mail : multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</p>	<p>Director</p>  <p>MULTISPECTRA CONSULTANTS <i>CIVIL ENGINEERING, SOFTWARE ENGINEERING</i></p> <p>Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata-700029, West Bengal, India. <i>E-mail:multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</i></p> <p>ENGINEERING FOR A BETTER TOMORROW</p>
<p>1st February, 2014 to 30th June, 2016</p>	<p>MultiSpectra Consultants, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India. E-mail : multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</p>	<p>Chairman</p>  <p>MULTISPECTRA CONSULTANTS <i>CIVIL ENGINEERING, SOFTWARE ENGINEERING</i></p> <p>Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata-700029, West Bengal, India. <i>E-mail:multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</i></p> <p>ENGINEERING FOR A BETTER TOMORROW</p>

<p>1st July, 2016 to present</p>	<p>MultiSpectra Consultants, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India. E-mail : multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</p>	<p>Chairman and Managing Director</p>  <p>MULTISPECTRA CONSULTANTS <i>CIVIL ENGINEERING, SOFTWARE ENGINEERING</i></p> <p>Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata-700029, West Bengal, India. <i>E-mail:multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</i></p> <p><i>ENGINEERING FOR A BETTER TOMORROW</i></p>
<p>1st January, 2018 to present</p>	<p>MultiSpectra Global, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India. E-mail : multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</p>	<p>Chairman and Managing Director</p>  <p>MULTISPECTRA GLOBAL <i>CIVIL ENGINEERING, SOFTWARE ENGINEERING, EDUCATION</i></p> <p>Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata-700029, West Bengal, India. <i>E-mail:multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</i></p> <p><i>ENGINEERING FOR PLANET EARTH</i></p>

<p>1st January, 2018 to present</p>	<p>MultiSpectra Consultants Asia, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India. E-mail : multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</p>	<p>Chairman and Managing Director</p>  <p>MULTISPECTRA CONSULTANTS ASIA <i>CIVIL ENGINEERING, SOFTWARE ENGINEERING</i></p> <p>Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata-700029, West Bengal, India. <i>E-mail:multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</i></p> <p><i>ENGINEERING FOR A BETTER TOMORROW</i></p>
<p>1st January, 2018 to present</p>	<p>MultiSpectra Technologies, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India. E-mail : multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</p>	<p>Chairman and Managing Director</p>  <p>MULTISPECTRA TECHNOLOGIES <i>CIVIL ENGINEERING, SOFTWARE ENGINEERING</i></p> <p>Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata-700029, West Bengal, India. <i>E-mail:multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</i></p> <p><i>ENGINEERING FOR A BETTER TOMORROW</i></p>

<p>1st February, 2018 to present</p>	<p>MultiSpectra Aqua, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India. E-mail : multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</p>	<p>Chairman and Managing Director</p>  <p>MULTISPECTRA AQUA <i>CIVIL ENGINEERING, SOFTWARE ENGINEERING</i></p> <p>Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata-700029, West Bengal, India. <i>E-mail:multispectraconsultantsindia@gmail.com multispectraconsultantsnepal@gmail.com multispectraconsultantsasia@gmail.com</i></p> <p>REFRESHING PLANET EARTH</p>
<p>10th August, 2014 to 31st October, 2014</p>	<p>MultiSpectra Consultants, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.</p>	<p>Design of a multi-storied building at 17, Biplabi Ambika Chakraborty Sarani, Kolkata - 700029, West Bengal, India</p>
<p>15th November, 2014 to 20th January, 2015</p>	<p>MultiSpectra Consultants, Mahabodhi Bhavan, 23, Biplabi Ambika Chakraborty Sarani, Kolkata – 700 029, West Bengal, India.</p>	<p>Design of a multi-storied building at 14/ A, Jatin Bagchi Road, Kolkata - 700029, West Bengal, India</p>
<p>2nd July, 2016 to present</p>	<p>OmDayal Group of Institutions - Engineering College, Plot No. 38(P), 38(A), 39(P) and 39(A), Uluberia Industrial Growth Centre, Uluberia - 711 316, West Bengal, India.</p>	<p>Distinguished Visiting Professor of Civil Engineering</p>
<p>26th October, 2016 to present</p>	<p>Thai Petroleum and Trading Co., Ltd, 9-10th Floor, TP&T Tower, 1 Soi Vibhavadee-Rangsit, 19 Chatuchak, Chatuchak, Bangkok 10900, Thailand.</p>	<p>Civil Engineering Consultant</p>

34. Besides Conferences at which papers were presented and seminars held at Bengal Engineering College (Deemed University) / Bengal Engineering and Science University, Shibpur, has been also delegate at / is scheduled to be delegate at the following workshops and seminars :

- (a) Workshop on “Failure and Maintenance of Civil Engineering Structures” organised by the American Society of Civil Engineers – India Section and Bengal Engineering College, Howrah, at Calcutta during 17 – 18 July, 1992;
- (b) Workshop on “Structures in Aggressive Environment” organised by the American Society of Civil Engineers – India Section and Bengal Engineering College (Deemed University), Howrah, at Calcutta during 9 – 10 July, 1993;
- (f) Workshop on “Our Environment : Its Challenges to Development Projects” organised by the American Society of Civil Engineers – India Section and Bengal Engineering College (Deemed University), Howrah, at Calcutta during 9 – 10 September, 1994;
- (g) Seminar on “Unique Solutions to Civil Engineering Problems” organised by the American Society of Civil Engineers – India Section, Bengal Engineering College (Deemed University), Howrah, and Jadavpur University at Calcutta during 22 – 23 September, 1995;
- (h) Seminar on “New Vistas of Civil Engineering in the Liberalised Economy” organised by the American Society of Civil Engineers – India Section, Bengal Engineering College (Deemed University), Howrah and Jadavpur University, at Calcutta during 27 – 28 September, 1996;
- (i) National Workshop on “Finite Element Method in Engineering” organised by the Bengal Engineering and Science University, Shibpur, Howrah, at Howrah during 28 – 29 October, 2005;
- (j) Eighth International Conference on “Vibration Problems” ” organised by the Bengal Engineering and Science University, Shibpur, Howrah, at Howrah during 30 January – 3 February, 2007;
- (k) ICE Workshop on “Modifying infrastructure procurement to enhance social development” at Kolkata on 20 November, 2007;
- (l) Workshop on “Different Soft Computing Techniques” organised by the Bengal Engineering and Science University, Shibpur, Howrah, at Howrah during 7 – 8 January, 2008.
- (m) Workshop on “Entrepreneurship” organised by the Indian Institute of Management Calcutta at Kolkata during 16 – 17 February, 2018.

35. Administrative Duties undertaken at Bengal Engineering and Science University, Shibpur :

Served as
Superintendent,
Hostel Number 10,
Bengal Engineering College
(Deemed University);

Served several times as Observer in the Joint Entrance Examination for admission to undergraduate courses in engineering and medicine conducted by the West Bengal Board of Examinations for Admission to Engineering, Medical and Technological Degree Colleges;

Served as
Member,
Faculty Council,
Faculty of Engineering and Technology,
Bengal Engineering and Science University,
Shibpur;

Served as
Member,
Academic Council,
Bengal Engineering College
(Deemed University);

Served as

Member and Member Secretary,
Departmental Academic Committee,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Head Examiner,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Member,
Departmental Ph.D. Committee,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Member,
Departmental Ph.D. Admission Committee,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Member,
Departmental Post-graduate Admission
Committee,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Head Examiner,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Professor-in-Charge, Seminars,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Member,
Departmental TEQIP (Technical Education
Quality Improvement Project) Committee,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Has been
Member,
School of Community Science and
Technology,
Bengal Engineering and Science University,
Shibpur;

Has been
Member,
Science Awareness Committee,
Bengal Engineering and Science University,
Shibpur;

Served as External M.Tech. Thesis and
Viva-voce Examiner (2008 and 2013) of
Indian Institute of Technology, Kharagpur,
India;

Served as External Paper-Setter of Regional
Engineering College, Durgapur, India and
Jalpaiguri Government Engineering College,
Jalpaiguri, India;

Serving as Head Examiner, External Paper-
Setter, Examiner and Viva-voce Examiner
for examinations conducted by the West
Bengal State Council for Technical
Education, Department of Technical
Education and Training, Government of
West Bengal, India;

Serving as Head Examiner, Paper-Setter
and Examiner for Section A and Section B
examinations conducted by The Institution
of Engineers (India);

Served as External General Viva-voce
Examiner (2007 and 2009) for Contai
Polytechnic, Government of West Bengal,
India.

36. Student-centred activities undertaken at Bengal Engineering and Science University, Shibpur :

Served as
Professor-in-Charge,
Placement of Students,
Department of Applied Mechanics,
Bengal Engineering and Science University,
Shibpur;

Served as
Faculty Adviser,
American Society of Civil Engineers -

Bengal Engineering and Science University,
Shibpur Students' Chapter,
Bengal Engineering and Science University,
Shibpur;

Has counselled students on numerous occasions regarding entry into professional life and norms of professional practice at Bengal Engineering and Science University, Shibpur.

**37. Countries visited
(for academic/professional purposes)**

: Germany, Switzerland, Italy, Russia, France, Austria, Thailand, Bangladesh, United Arab Emirates, Egypt, Jordan, Nepal, Bhutan, Sri Lanka, Myanmar, China, Japan, Republic of Korea, Taiwan, United Kingdom, Malaysia, Singapore.

38. Industrial Experience (prior to passing of Bachelor of Civil Engineering degree) :

Period	Organisation	Title of Project and Nature of Work
16th June, 1988 to 15th July, 1988	Bharat Bhari Udyog Nigam Limited, Hide Road, Calcutta, India.	Civil Engineering Construction – Summer Training during Undergraduate Engineering Programme

39. Statement on Health

: Height 5'6";
Weight 67 kg;
Very Active, Athletic and Fit;
Glasses not used;
Never hospitalised;
Never became unconscious;
Never underwent any sort of surgery.

40. Extra-Curricular Activities and Interests

:Community Service, Hiking and Trekking, Martial Arts, Rowing, Chess, Travelling, Reading, Music, Photography, Appreciation of Paintings and Sculptures, Creative Literary Writing;
Life Member, Technology Alumni Association – Kolkata Chapter;
Life Member, Pan-IIT Alumni India;
Life Member, AIT Alumni Association;
Life Member, Global Alumni Association of Bengal Engineering and Science University (GAABESU);
Life Member, Maha Bodhi Society of India;

Life Member, Maha Bodhi Society,
Bengaluru;
Conferred the title of 'Mahaupasaka' (Great
Lay Disciple) by Maha Bodhi Society,
Bengaluru;
Life Member, World Fellowship of
Buddhists;
Life Member, Buddhist Peace Fellowship;
Life Member, Buddhist Alliance for Social
Engagement;
Life Member, Soka Gakkai International,
Tokyo;
Life Member, Rissho Kosei-kai, Tokyo;
Life Member, Santi Pracha Dhamma
Institute, Bangkok;
Life Member, Asian Cultural Forum on
Development, Bangkok;
Life Member, Hong Kong Society of
Dharma Supporters;
Life Member, Buddhist Missionary Society,
Malaysia, Kuala Lumpur;
Volunteer, International Buddhist
Confederation;
Life Member, International Association of
Buddhist Studies;
Life Member, Society for Buddhist-Christian
Studies;
Member, Rotary Club of South Kolkata;
Paul Harris Fellow of Rotary
International;
Volunteer, Greenpeace International;
Volunteer, Amnesty International;
Volunteer, Change.org;
Supporter, American Civil Liberties Union;
Donor, Engineers against Poverty;

Holder of “C” certificate of National Cadet
Corps, Army Wing;

Served the Election Commission of India as
an Officer-on-Special-Duty in the Elections
to the Lower House of Parliament and the
State Legislative Assembly in 1996;

Was a member of the Don Bosco School,
Park Circus, Calcutta Debating and Quiz
teams while a school student.

41. Computer Skill Set

: Conversant with all common programming
languages, with all general software
packages and with specialised software
packages like Flow-3D, ArcGIS, PCI
Geomatica, MIKE 11, MIKE SHE, Visual
MODFLOW, Fluent, FEFLOW, FLOTRAN,
SIMGRO, BILAN, NIZOWKA.

Conversant with and worked on the MS-DOS, WINDOWS (all versions), Mac OS X, Linux, NOS/VE, Symbian and Android Operating Systems.

42. Other Relevant Data

: Nominated for inclusion in Reguerdon Inc. Asia - Men & Women of Achievement.

43. Statement of Purpose :

I had been actively engaged in Civil Engineering research, consultancy, teaching and institution development activities from the time I joined Bengal Engineering and Science University, Shibpur, Howrah, India, till I took Voluntary Retirement from Service from it to devote all my professional attention to MultiSpectra Consultants of which I am now the Chairman and Managing Director. I am a very reputed practising Civil Engineer. I have also published several research papers in national and international journals and conference proceedings. I am a life fellow or life member of many professional societies. I am a Fellow Member and also the Vice-President (East) of the Association of Consulting Civil Engineers (India) in which capacity I have been associated with the preparation of several documents related to the regulation of the profession and practice of Civil Engineering.

I played a leading role in organising a Workshop on River Hydraulics in my institution in September, 1995. I had the official designation of Convener of the Organising Committee. I had to conduct meetings of the Committee and assign tasks and functions to different members. Printing and distribution of brochures, obtaining funding from the All India Council of Technical Education, Ministry of Human Resource Development, Government of India, New Delhi and the Department of Science and Technology, Government of West Bengal, Calcutta were done. I received papers and arranged for peer-reviews to be conducted. The Proceedings were printed and all activities related to the conduction of the Workshop including arrangement of accommodation for outstation participants were conducted by me.

I have been associated twice with field surveys of water quality in rural West Bengal under a scheme funded by the Ministry of Environment and Forests, Government of India and our findings have been passed on to the competent authority along with our recommendations.

I am a leading engineer, technologist, academician and technocrat in my field, having achieved and continuing to consistently achieve excellence in Civil Engineering practice, research, teaching and management. My aim is to scale still greater heights in my life.

44. References :

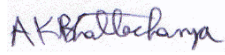
1. Dr. Sankar Sen
Retired Vice-Chancellor, Jadavpur University, and
Former Minister, Science and Technology Department, Government of West Bengal,
W3R-3/6, Phase VII, Golf Green,
Kolkata – 700 095,
West Bengal,
India.
E-mail :sankarsen.golfgreen@gmail.com
2. Dr. G. Biswas
Director and J C Bose National Fellow,
Indian Institute of Technology Guwahati,
Guwahati-781039,
Assam,
India.
E-mail : director@iitg.ernet.in, gtm@iitg.ernet.in

3. Dr. C. Mayilswami
Former Professor and Head,
Department of Agricultural Engineering,
Sri Shakthi Institute of Engineering and Technology,
L & T Bypass Road,
Chinniyampalayam
Coimbatore – 641 062,
Tamil Nadu,
India.
E-mail : ceemayil@gmail.com
4. Dr. M. Thangarajan
Retired Scientist-G from CSIR-NGRI, Hyderabad
4-54/1, Street No.:8,
Habsiguda,
Hyderabad – 500 007,
Telengana,
India.
E-mail: karvimrajan@gmail.com
5. Dr. Gamal Elsaeed
Associate Professor of Hydraulics, Coastal and Water Resources Engineering,
Department of Civil Engineering,
Faculty of Engineering – Shobra,
Banha University,
8 Elmarwa Building,
Nabil Elwakad Street,
Heliopolis,
Cairo 11341,
Egypt.
E-mail : gelsaeed@feng.bu.edu.eg, elsaeed@sadcoegypt.com
6. Dr. A. K. M. Sadrul Islam,
Retired Head and Professor of Department of Mechanical & Chemical Engineering,
Islamic University of Technology (IUT),
Organization of Islamic Cooperation (OIC),
Board Bazar,
Gazipur-1704,
Bangladesh
E-mail: sadrul05@gmail.com
7. Dr. Saeid Eslamian
Professor,
Department of Agriculture Engineering,
Isfahan University of Technology,
Isfahan,
Iran.
E-mail: eslamian.s@gmail.com
8. Dr. Vijay P. Singh
Caroline and William N. Lehrer Distinguished Chair Professor in Water Engineering,
Department of Biological and Agricultural Engineering &
Zachry Department of Civil Engineering,
Texas A and M University,
321 Scoates Hall, 2117 TAMU,
College Station, Texas 77843-2117,

U.S.A.

E-mail: vsingh@tamu.edu

I certify that the details given above are true.



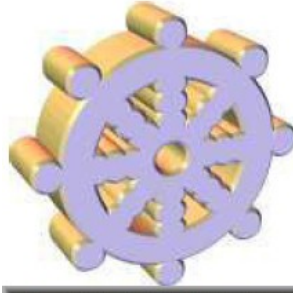
Dr. Amartya Kumar Bhattacharya
Chairman and Managing Director,
MultiSpectra Consultants, (UAN WB10D0001890)
Mahabodhi Bhavan,
23, Biplabi Ambika Chakraborty Sarani,
Kolkata – 700 029,
West Bengal, India.
05/03/2019

The subsidiaries of MultiSpectra Consultants are

- MultiSpectra Global (MSG);
- MultiSpectra Consultants Asia (MSCA);
- MultiSpectra Technologies (MST);
- MultiSpectra Aqua (MSA);
- MultiSpectra, Inc. (MSI);
- MultiSpectra Bangladesh (MSB);
- MultiSpectra Tripura (MSTP);
- MultiSpectra Edge (MSE); (<http://tinyurl.com/MultiSpectraEdge>) (Also a scheme of MultiSpectra Consultants for students and young engineers, scientists and technologists)
- MultiSpectra Spark (MSS); (<http://tinyurl.com/MultiSpectraSpark>) (Also a scheme of MultiSpectra Consultants for senior engineers, scientists and technologists)
- MultiSpectra Consultants Nepal (MSCN);
- MultiSpectra Consulting Engineers (MSCE);
- MultiSpectra Holdings (MSH);
- MultiSpectra Realtors (MSR);
- MultiSpectra Travels (MST);
- MultiSpectra Publishers (MSP);
- MultiSpectra Media (MSM);
- MultiSpectra Laboratories (MSL);
- MultiSpectra Institute of Technology (MSIT).

MultiSpectra Consultants operates in the following areas:

- Hydraulics;
- Hydrology;
- Water Resources Engineering;
- Geotechnical Engineering;
- Structural Engineering;
- Environmental Engineering;
- 3rd Party Quality Control / Quality Assessment (QC/QA);
- Project Management Consultancy;
- Landscape and Interior Designing;
- Civil Engineering Research and Development (R&D);
- Civil Engineering Education and Training;
- Software Engineering;
- Cloud Computing.



नमो तस्स भगवतो ब्रह्मणे सम्मत्सम्बुद्धस्स

MULTISPECTRA CONSULTANTS

CIVIL ENGINEERING, SOFTWARE ENGINEERING
23, Biplabi Ambika Chakraborty Sarani,
Kolkata-700029,
West Bengal,
India.

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ENGINEERING FOR A BETTER TOMORROW

MULTISPECTRA GLOBAL

CIVIL ENGINEERING, SOFTWARE ENGINEERING, EDUCATION
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multispectraconsultantsasia@gmail.com

ENGINEERING FOR PLANET EARTH



Diwan Bahadur Banga Chandra - Dr. Amartya Kumar Bhattacharya Group of Companies
Engineering for a Better World

MultiSpectra Consultants is looking for agents in countries in the Asia-Pacific region, in particular in Nepal, Bhutan, Bangladesh, Sri Lanka, Myanmar, Thailand, Malaysia, Singapore, Laos, Cambodia and Vietnam. Expressions of interest may be directed to me at dramartyakumar@gmail.com.

Retired Civil Engineers are invited to associate themselves with MultiSpectra Consultants. Applications with a complete CV should be emailed to me at dramartyakumar@gmail.com.

I am open to being a Visiting Professor for some time at any university in the world. I may be emailed at dramartyakumar@gmail.com. I may be looked-up in the website <https://www.multispectraconsultants.com> and in the website <https://tinyurl.com/MultiSpectraGlobal>.

Websites : <https://www.multispectraconsultants.com>
<http://tinyurl.com/MultiSpectraGlobal>
<http://tinyurl.com/MultiSpectraBrochure>
<http://tinyurl.com/MultiSpectraEdge>
<http://tinyurl.com/MultiSpectraSpark>
<http://tinyurl.com/MultiSpectraonJustdial>
<https://tinyurl.com/MultiSpectraonSulekhaBusiness>
<http://tinyurl.com/DrAmartyaKumar>
<http://tinyurl.com/DrAmartyaKumarBhattacharya>
<https://www.linkedin.com/in/dramartyakumarbhattacharya>
<https://www.facebook.com/amartyakumar>
<https://www.facebook.com/MultiSpectraConsultants>
<https://dramartyakumarbhattacharya.branded.me>
<https://plus.google.com/+AmartyaKumarBhattacharya>
<https://dramartyakumarbhattacharya.wordpress.com>
<https://www.pinterest.com/dramartyakumar>
<http://dramartyakumarbhattacharya.weebly.com>
<https://vk.com/dramartyakumarbhattacharya>
<https://medium.com/@dramartyakumar>
https://www.researchgate.net/profile/Amartya_Bhattacharya
<https://www.mendeley.com/profiles/dr-amartya-kumar-bhattacharya>
<https://www.f6s.com/multispectraconsultants>
<https://www.f6s.com/dr.amartyakumarbhattacharya>
<https://angel.co/dr-amartya-kumar-bhattacharya>
<https://vimeo.com/dramartyakumar>
<https://soundcloud.com/dramartyakumar>
<http://startupthailand.org/listing/multispectra-consultants>
<http://www.startuplithuania.lt/en/startups/multispectra-consultants/670>
<https://goo.gl/maps/mmprPyMabkt>
<https://wa.me/918902494161>
<https://wiseintro.co/dramartyakumarbhattacharya>
<http://www.acce.in>

Twitter : [@DrAmartya](https://twitter.com/DrAmartya)

Some other Achievements :

- Received 5 medals for academic excellence in Don Bosco School, Park Circus, Calcutta;
- Ranked 519 in Engineering and 381 in Medicine in the Joint Entrance Examination in 1985, the examination conducted by the West Bengal Board of Examinations for Admission to Engineering, Medical and Technological Degree Colleges;
- Cleared the University of Roorkee Engineering Admission Test in 1985;
- Obtained a percentile score of 96.98 in the Graduate Aptitude Test in Engineering in 1989;
- Was elected General Secretary (Mess) of the B.C.Roy Hall of Residence, Indian Institute of Technology, Kharagpur and served as the same.

Literary and Miscellaneous Writings :

- Letter to the Editor by **A.K.Bhattacharya** has been published in Frontline, 28 March, 2008, Vol. 25, No. 6. Page 126;
- Article entitled “Industry versus Agriculture – A Few Conflicting Viewpoints” by D.Kar, S. Basack and **A.K.Bhattacharya** has been published in Souvenir, 2008, Bengal Engineering College Ex-Students’ Club, Bidhannagar, Kolkata;
- Article entitled “Netaji, 1941 and After: Birth of a Legend” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 126, No. 11-12, 2008. Pages 94-95;
- Article entitled “A Holistic Engineering Perspective of Salt Lake City, Kolkata” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 126, No. 15-16, 2008. Pages 135-139;
- Article entitled “The Art of Calligraphy” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 126, No. 17-18, 2008. Pages 156-158;
- Article entitled “India's Fight for Independence: One Track Revisited” by **A.K.Bhattacharya** has been published in the Volume prepared on occasion of the Bengal Engineering and Science University, Shibpur, Reunion, April, 2009. Pages 46-48;
- Article entitled “Meditation in the Light of Buddhism” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 127, No. 9-10, 2009. Pages 53-55;
- Article entitled “Hydroelectric Power Scenario in India” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 127, No. 17-18, 2009. Pages 114-121;
- Article entitled “Reflections on Buddhism” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 128, No. 7-8, 2010. Pages 71-77;
- Article entitled “Applications of Geotextiles in Geotechnical Engineering” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 128, No. 21-22, 2010. Pages 205-207;
- Article entitled “Flood Management in Eastern and North-Eastern India and Bangladesh” by **A.K.Bhattacharya** has been published in The Indian Messenger, Vol. 129, No. 1-2, 2011. Pages 5-13;
- Article entitled “An Introduction to Buddhism” by **A.K.Bhattacharya** has been published in The Indian Messenger, Maghotsava Issue, 2011. Pages 19-25;
- Article entitled “Meditation in Buddhism” by **A.K.Bhattacharya** has been published in Prabuddha Bharata (Awakened India), Vol. 116, No. 12, December, 2011. Pages 134-137;
- Article entitled “Meditation: For Mental and Physical Fitness” by **A.K.Bhattacharya** has been published in the Volume prepared on occasion of the Bengal Engineering and Science University, Shibpur, Reunion, April, 2012. Pages 11-12;
- Article entitled “Alaya-Vijnana: Storehouse Consciousness” by **A.K.Bhattacharya** has been published in Prabuddha Bharata (Awakened India), Vol. 117, No. 9, September, 2012. Pages 454-458;
- Article entitled “Buddhism: Fundamentals of a Trans-National Faith” by **A.K.Bhattacharya** has been published in the Volume prepared on occasion of the Bengal Engineering and Science University, Shibpur, Reunion, February, 2013. Pages 36-39;
- Article entitled “Alaya-Vijnana and Buddha-Dhatu” by **A.K.Bhattacharya** has been published in The Indian Messenger, Maghotsava Issue, 2013. Pages 5-12;
- Article entitled “Mahayana and Zen Buddhism” by **A.K.Bhattacharya** has been published in Prabuddha Bharata (Awakened India), Vol. 118, No. 11, November, 2013. Pages 625-628;
- Article entitled “Theravada Buddhism” by **A.K.Bhattacharya** has been published in The Maha Bodhi, Vol. 121, No. 1, September, 2014. Pages 146-154;
- Article entitled “My IIT Years” by **A.K.Bhattacharya** has been published in Yearnings of Yore, Vol. XII, 2015, published by Technology Alumni Association, Indian Institute of Technology, Kharagpur. Pages 58-60;
- Article entitled “Fundamentals of Theravada Buddhism” by **A.K.Bhattacharya** has been published in The Indian Messenger, Maghotsava Issue, 2015. Pages 71-79;
- Article entitled “Basics of Theravada Buddhism” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> and has been published in Dhamma, Vol. 43, No. 9, February, 2016, Pages 31 to 37, (1st part of the article) and in Dhamma, Vol. 43, No. 10, March, 2016, Pages 43 to 48, (2nd part of the article);
- White Paper entitled “The Dismal Condition of India's Villagers” by **A.K.Bhattacharya** has been published on 15 June, 2016;

- Article entitled “Buddhism: Fundamentals of a World Faith” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com> and has been published in The Maha Bodhi, Vol. 123, No. 3, September, 2016. Pages 76-93;
- Article entitled “A Historic Blunder? The Dark Aftermath of my Grandfather's Migration to Kolkata from East Bengal” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com>;
- Article entitled “An Inconvenient Truth” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com>;
- Article entitled “Placing India” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com>;
- Article entitled “An Indifferent Spectator” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com>;
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- Article entitled “Reflections on Anatta and Meditation” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com>;
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- Article entitled “India in 2019” by **A.K.Bhattacharya** has been published at <https://dramartyakumarbhattacharya.wordpress.com>;
- Article entitled “Windows into Buddhism and Buddhist - Russian Orthodox Christian Dialogue in Buddhist Regions of Russia focussing on Kalmykia” by **A.K.Bhattacharya** has been accepted for publication in Dhamma.

Speeches :

- Speech entitled “Concepts that the Saddharma Pundarika (Lotus) Sutra adds to Mahayana Buddhism” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 8 December, 2014;
- Speech entitled “Lord Shakyamuni Buddha and Lord Jesus Christ” by **A.K.Bhattacharya** has been delivered at Christ the King Roman Catholic Church, Park Circus, Kolkata, on 14 December, 2014;
- Speech entitled “The Lankavatara Sutra” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 24 February, 2015;
- Speech entitled “The Mahasatipatthana Sutta” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 3 March, 2015;
- Speech entitled “The Dashabhumika Sutra” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 10 March, 2015;
- Speech entitled “The Adittapariyaya Sutta” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 17 March, 2015;
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- Speech entitled “The Ten Commandments of Christianity and The Noble Eightfold Path (Arya Ashtanga Marga) of Buddhism” by **A.K.Bhattacharya** has been delivered at Christ the King Roman Catholic Church, Park Circus, Kolkata, on 5 April, 2015;
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- Speech entitled “The Amitabha-vyuha Sutra” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 21 April, 2015;
- Speech entitled “Buddhism in China, Mongolia, Taiwan, Korea and Japan” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 28 April, 2015;
- Speech entitled “Acharya Nagarjuna's Madhyamakashastra, Chapter 24, Karika 18” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 24 June, 2015;
- Speech by **A.K.Bhattacharya** has been delivered at the International Conference on Forensic Civil Engineering (FCE-2016) held at Nagpur during 21-23 January, 2016;
- Speech entitled “Buddhism in Russia” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 3 February, 2016;
- Speech entitled “Acharya Asanga” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 9 February, 2016;
- Speech entitled “The Abhidharmakosha” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 17 February, 2016;
- Speech entitled “The Samyutta Nikaya” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 24 February, 2016;
- Speech entitled “Theravada Buddhist Meditation” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 7 June, 2016;
- Speech entitled “The Kachchayanagotta Sutta” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 14 June, 2016;
- Speech entitled “Our Buddhist Civilisation” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 21 June, 2016;
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- Speech entitled “Acharya Shantideva” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 5 July, 2016;
- Speech entitled “Acharya Nagarjuna” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 12 July, 2016;
- Speech entitled “Acharya Vasubandhu” by **A.K.Bhattacharya** has been delivered at the Maha Bodhi Society of India, Kolkata, on 19 July, 2016.





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