









## 6<sup>th</sup> National Workshop on "Bioinformatics for Sustainable Development in Agriculture, Health and Environment"

Dates: 13-14, December, 2017

Venue: Bangladesh Rice Research Institute (BRRI), Gazipur-1701

## Organized By:

Bangladesh Bioinformatics and Computational Biology Association (BBCBA) in collaboration with

Bioinformatics Research Group of Rajshahi University (BioRGRU), Bangladesh Agriculture Research Institute (BARI) & Bangladesh Rice Research Institute (BRRI), Gazipur, Dhaka

## **Supported By:**

HEQEP Sub-Project (HEQEP:CP-3603, W2, R3), Dept. of Statistics, Rajshahi University (RU) & UGC, BARI and BRRI

## Program

Day-1. Wednesday (13 December 2017)

09.00-09.30	Registration
09.30-10.45	Session 1: Inaugural session
	Welcome address: <b>Dr. Tamal Lata Aditya</b> , Convener, Workshop Organizing Committee and Director Research, BRRI, Gazipur, Dhaka
	<ul> <li>Address from BBCBA: Dr. AM Zonaed Siddique, General Secretary of BBCBA &amp; Professor, Dept. of Pathology and Parasitology, Chittagong Veterinary and Animal Sciences University (CVASU), Chittagong.</li> </ul>
	• Keynote Presentation: <b>Dr. Md. Nurul Haque Mollah</b> , President of BBCBA & Professor, Bioinformatics Lab., Dept. of Statistics, Rajshahi University.
	<ul> <li>Speech of Special Guest: Dr. Abul Kalam Azad, Director General, Bangladesh Agricultural Research Institute (BARI), Gazipur</li> <li>Speech of Chief Guest: Dr. Bhagya Rani Banik, Exicutive Chairman, Bangladesh Agricultural Research Council (BARC), Farmgate, Dhaka</li> </ul>
	• Speech of Chairperson: <b>Dr. Md. Shahjahan Kabir,</b> Director General, Bangladesh Rice Research Institute (BRRI), Gazipur-1701

	Vote of thanks: Dr. Md. Ansar Ali, Director (Admin), Bangladesh Rice Research Institute (BRRI), Gazipur-1701
10.45-11:00	Tea Break
11:00 - 13:00	Technical Session 1: Chaired by Dr. Munirul Alam, Fellow Am. Acad. Mic., Senior Scientist, ICDDRB, Dhaka
11:00-12:00	Topic-1: Introduction to Bioinformatics and Its Role in Biotechnology Resource Person: Dr. Md. Nurul Haque Mollah, Professor, Bioinformatics Lab., Dept. of Statistics, Rajshahi University, Rajshahi
12:00-13:00	Topic-2: Bioinformatics for Understanding Endophytic Microorganisms and their Bioactive Compounds  Resource Persons: Dr. Haseena Khan, Professor, Dept. of Biochemistry and Molecular Biology, Dhaka University. Email: <a href="mailto:haseena@univdhaka.edu">haseena@univdhaka.edu</a>
13:00 - 14:00	Lunch Break & Lab Visit
14:00 - 16:00	<b>Technical Session 2: Chaired by Dr. Haseena Khan</b> , Professor, Dept. of Biochemistry and Molecular Biology, Dhaka University
14:00-15:00	Topic-3: Computational Biology for Prediction of Arsenic and Antimony Transporter Aquaporins in the Genomes of Crop Plants.  Resource Person: Dr. Md. Abul Kalam Azad, Professor, Dept. of Genetic Engineering and Biotechnology, Shahjalal University of Science and Technology (SUST), Sylhet: Email: dakazad-btc@sust.edu, dakazad@yahoo.com
15:00-16:00	Topic-4: Next Generation Sequencing (NGS) Data Analyses Pipeline: An Introduction  Resource Person: Dr. AMAM Zonaed Siddiki, Professor, Dept. of Pathology and Parasitology, CVASU, Chittagong. Email: zsiddiki@gmail.com
16:00-16:15	TEA Break
16:15 - 18:15	<b>Technical Session 3: Dr. S. M. Shahinul Islam,</b> Associate Professor, Institute of Biological Science (IBSc), Rajshahi University.
16:15-17:15	Topic-5: Metagenomics: The Frontier in Agriculture, Environment and Health.  Resource Persons: Dr. Munirul Alam, Fellow Am. Acad. Mic., Senior Scientist, ICDDRB, Dhaka. Email: munirul@icddrb.org  Topic-6: Metabolic Pathway Analysis using Bioinformatics to Detect Disease Related
17:15-18:15	Biomarkers.  Resource Persons: Prof. Dr. Md. Aminul Hoque, Bioinformatics Lab., Dept. of Statistics, RU., Rajshahi

Day-2. Thursday (14 December 2017)

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9:00-11.0 0	<b>Technical Session 4: Dr. M. Enamul Haque</b> , PSO, Biotecnology division, BRRI, Gazipur	
9:00-10:00	<u>Topic-7:</u> Bioinformatics and Sustainable Agriculture  Resource Persons: Professor Dr. Md. Shahidul Haque, Department of Biotechnology, Faculty of Agriculture, Bangladesh Agricultural University, Mymensingh-2202.  Email: <a href="mailto:haquems@bau.edu.bd">haquems@bau.edu.bd</a>	
10:00-11:00	Topic-8: QTL mapping: First step of gene discovery.  Resource Persons: Dr. M. Akhlasur Rahman, Principal Scientific Officer, Plant Breeding Division, BRRI. Gazipur  TEA Break	
11:00-11:15	Technical Session 5: Dr. M. Akhlasur Rahman, PSO, Plant Breeding Division, BRRI. Gazipur	
11:15 - 13:15	Topic-9: Bioinformatics in Protein function prediction and analyses in Tick Model.  Resource Persons: Dr. Md. Abdul Alim, Professor, Dept. of Parasitology, Faculty of	
11:15 - 12:15	Veterinary Science, Bangladesh Agricultural University (BAU), Mymensingh. <u>alim20471@yahoo.com</u>	
12.15.12.00	Topic-10: Genome wide Association Mapping in Rice Resource Persons: Dr. ESM Harunur Rashid, Senior Scientific Officer, Genetic Resources and Seed division, BRRI, Gazipur.	
12:15 - 13.00		
13.00 - 14.00	Lunch Break and Lab Visit	
14:00 - 16:00 14:00 - 15:00	<b>Technical Session 6: Chaired by Dr. Md. Abdul Alim,</b> Professor, Dept. of Parasitology, Faculty of Veterinary Science, Bangladesh Agricultural University (BAU), Mymensingh.	
15:00 – 16:00	Topic-11: Physiological Mechanism and Stress-Tolerance Specific Proteins Jointly Tolerate the stress of Drought and Salinity in Tibetan Wild Barley.  Resource Person: Dr. Imrul Mosaddek Ahmed, Senior Scientific Officer, Plant Physiology Division Bangladesh Agricultural Research Institute (BARI), Gazipur	
	Topic-12: Ambiguous role of 5-Aminolevulinic acid (ALA) in mitigating oxidative stress in maize under salinity and drought stress  Resource Person: Dr. Md. Motiar Rohman ( Plant Breeding Division, BARI)and Md. Robyul Islam (Dept. of Biotechnology, BSMRAU, Gazipur	
16:00-17:00	<b>Technical Session 7: Chaired by Dr. Imrul Mosaddek Ahmed</b> , SSO,, Plant Physiology Division Bangladesh Agricultural Research Institute (BARI), Gazipur	
	Topic-13: Advanced Phenotyping Technology for plant Growth and Development Research	
	Resource Persons: Dr. Md. Matiur Rahaman, Bioinformatics Lab., Dept. of Statistics, Rajshahi University, Rajshahi	
	Topic-14: Molecular Phylogeny of the Kingdom Fungi.	

	Resource Persons: Md Abdullahil Baki Bhuiyan, Assistant Professor, Department of Plant Pathology, BSMRAU, Gazipur.
16.15- 17.00	Session-7 (Closing Session): Chaired by Dr. AMAM Zonaed Siddique, General Secretary of BBCBA & Professor, Dept. of Pathology and Parasitology, Chittagong Veterinary and Animal Sciences University (CVASU), Chittagong.  *Feedback, *BBCBA Membership drive *Certificate awarding ceremony