

**Resume Of
ANISUR RAHMAN****Mailing Address:**

Assistant Professor
Department of Farm Power and Machinery
Bangladesh Agricultural University,
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Personal Details:

Name : ANISUR RAHMAN
Father's Name : Md. Idrish Ali
Permanent Address : Village: Barachapa, Post Office: Barachapa,
Upazila: Manohardi, District: Narsingdi
Bangladesh-1652
Nationality : Bangladeshi (by birth)
Date of Birth : 27 February,1986
Religion : Islam (Sunni)
Sex : Male
Blood : O +(ve)

Academic Credentials:**Master of Science in Farm Power and Machinery (MS in FPM)**

Bangladesh Agricultural University
Mymensingh-2202, Bangladesh.
CGPA : 4.000 (out of 4)
Merit position : **01** (First)
Passing Year : August 2010
Collaborating Institution: University of Saskatchewan, Saskatoon, Canada
Major Subjects : Appendix -1
Medium of Instruction : English

Bachelor of Science in Agricultural Engineering (B.Sc. Ag. Engg.)

Bangladesh Agricultural University
Mymensingh-2202, Bangladesh.
CGPA : 3.789 (out of 4)
Merit position : **02** (Second)
Passing Year : 22 June, 2008
Major Subjects : Appendix -1
Medium of Instruction : English

Higher Secondary Certificate (H.S.C.)

Institution : Govt. Science College
 Board : Dhaka
 Passing Year : 18 September 2002
 Obtained division : First

Secondary School Certificate (S.S.C.)

Institution : Barachapa High School
 Board : Dhaka
 Passing Year : 11 June 2000
 Obtained division : First*

Training and Certificate Received:

- ❖ Successfully completed an advanced course on “**Communicative English**” during May-July, 2006 arranged by the Department of Languages, Bangladesh Agricultural University, Mymensingh
- ❖ Successfully completed a training course on “**RDA-developed Irrigation and Water Management Technology and Field Attachment with Bogra based Farm Machinery Workshop**” during 11-19 May, 2008 arranged by the Centre for Irrigation and Water Management (CIWM), Rural Development Academy (RDA), Bogra, Bangladesh.
- ❖ Successfully completed the training course on ‘**Data Analysis: Mstac and SPSS**’ during 23 August to 04 September, 2008, from Graduate Training Institute, Bangladesh Agricultural University, Mymensingh

Workshop/ Course attended:

- ❖ Successfully attended the three hours workshop on “**PowerPoint - Intermediate**” during 17 May, 2010, from **ITS Training Services, University of Saskatchewan, Saskatoon, Canada.**
- ❖ Successfully attended the one hour workshop on “**PowerPoint - Creating Research Posters**” during 19 May, 2010, from **ITS Training Services, University of Saskatchewan, Saskatoon, Canada.**
- ❖ Successfully attended a course on “**ME 885.3: NEURAL NETWORKS: Theory and Applications (With Fuzzy Logic)**” during Spring Session 2010, from **Department of Mechanical Engineering, University of Saskatchewan, Saskatoon, Canada.**

Experiences:

- 26/10/2009 –25/10/2011
 Lecturer
 Department of Farm Power and Machinery
 Bangladesh Agricultural University
 Mymensingh-2202, Bangladesh
- 26/10/2011 –Present
 Assistant Professor

Department of Farm Power and Machinery
 Bangladesh Agricultural University
 Mymensingh-2202, Bangladesh

Language Proficiency:

Language	Reading	Writing	Speaking
English	Excellent	Excellent	Excellent
Bengali	Excellent	Excellent	Excellent

Computer skill:

- Proficient in working with Microsoft office, Microsoft Excel, Microsoft Power Point.
- Programming Languages: QBasic, Turbo C++, Visual Basic, Java Script, HTML ,etc
- Simulation software: STELLA, Matlab, Arc-view GIS.
- Internet Browsing.

On going Research:

Project Title : Design and Development of a Star-cum-Cono Weeder for Rice
Sponsored by : Bangladesh Agricultural University Research System (BAURES)
Position : Principal Investigator
Duration : July, 2011 to June, 2013
Amount : BDT 2, 89,000 (US\$ 3500)

List of Journal Publications:

- 1) **A. Rahman**, Most. Latifunnahar and M. M. Alam. **2009**. Selection of Minimum Cost Inputs for Boro Rice Cultivation in Bangladesh. **Journal of Agricultural Machinery and Bioresources Engineering 5(1& 2): 69–77.**
- 2) K. M. A. S. Sarkar, M. M. Alam, **A. Rahman** and M G K Bhuiyan **2011**. Post harvest losses in mango value chain. **International Journal of BioResearch 10 (5):25-31.**
- 3) **A. Rahman**, S. Panigrahi, R. L. Kushwaha, M. M. Alam, M. G. K Bhuiyan and M. A. Hossen **2011**. Physio-mechanical properties of compression molded fine flax fiber-reinforced composite. **Eco-friendly Agriculture Journal. 4(6): 628-632.**
- 4) A. Muhit, C. Roy, **A. Rahman** and T. Ahamed **2011**. Municipal solid waste mapping of Mymensingh Town using GIS Arcview. **Bangladesh Research Pub. J. 5(3):271-281.**

List of Conference papers:

- 1) **Anisur Rahman**, R. Lal Kushwaha, S. Reza Ashrafizadeh and Satya Panigrahi **2011**. Prediction of Energy Requirement of a Tillage Tool in a Soil Bin using Artificial Neural Network. **ASABE Paper Number: 1111122, ASABE Annual International Meeting Louisville, Kentucky August 7 – 10, 2011.**

- 2) Pradosh Kumar Panigrahi, Satya Panigrahi, **Anisur Rahman**, Radhey Kushwaha **2011**. Influence of Flax Diameter on Mechanical Properties of Biocomposite. **Oral presented Session: Sustainability, SAE 2011 Commercial Vehicle Engineering Congress, Donald E. Stephens Convention Center Rosemont, Illinois, USA, September 13-14, 2011.**

List of book published:

- 1) **Anisur Rahman. 2011.** Agricultural Machinery Operational Cost in Bangladesh. ISBN 978-3-8454-2920-5. **LAP LAMBERT Academic Publishing GmbH & Co. KG, Dudweiler Landstr. 99, 66123 Saasbrücken Germany**

List of other Report:

- 1) M. M. Alam. and **A. Rahman 2009**. “**Rapid Food Security Assessment II Multi-Year Assistance Program 2010-2014**” World Vision Bangladesh, Awal Center (3rd Floor), 34 Kamal Ataturk Avenue Banani, Dhaka 1213, Bangladesh.
- 2) M. M. Alam, B. K. Bala and **A. Rahman 2011** “**Installation, Modification and Field Trial of an Economically Viable SRR Dryer for Small Maize Traders and Large Farmers**” Winrock International, House # 2 (1st Floor), Road # 23/A, Gulshan-1, Bangladesh.

Fellowship /Honors Received:

Name of the Fellowship	: Canadian Commonwealth Exchange Program, Asia-Pacific (formerly GSEP)
Sponsor	: Canadian Bureau for International Education, on behalf of Foreign Affairs and International Trade Canada (DFAIT)
Place	: Department of Chemical and Biological Engineering (Formally Agricultural and Bioresource Engineering), University of Saskatchewan, Saskatoon, Canada
Duration	: January to June/2010

Membership in honor societies and professional organizations:

1. American Society of Agricultural and Biological Engineers, U.S.A. Member.1039705
2. Society of Automotive Engineers, U.S.A. Membership No.:6130400163
3. Institute of Engineers, Bangladesh, M-27195
4. Bangladesh Society of Agricultural Engineers, Bangladesh, LM-1102

Referees:

Dr. Md. Monjurul Alam

Professor
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Bangladesh Agricultural University
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Dr. R. L. Kushwaha

Professor Emeritus
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College of Engineering
University of Saskatchewan
Saskatoon, Canada
e-mail: lal.kushwaha@mail.usask.ca

Appendix -1

MAJOR SUBJECTS OF MS IN FARM POWER AND MACHINERY DEGREE

Semester- 1	Semester- 2
1. Engineering Mathematics 2. Renewable Energy Systems 3. Farm Power 4. Bio-resources Engineering and Bio System Modeling 5. Agricultural Machinery Testing, Evaluation and Maintenance	1. Instrumentation 2. Farm Machinery 3. Advanced Agricultural Process Engineering 4. Agricultural System Engineering 5. Plant Protection Machinery and Equipment

Master of Science (MS) Thesis Title

Fiber Diameter Effect on Compression Molded Flax Fiber-Reinforced Biocomposites

Abstract: Flax fibers are often used as reinforcement for thermoset and thermoplastic to produce biocomposite products. These products exhibit numerous advantages such as good mechanical properties, low density, and biodegradability. Thermoplastics are usually reinforced with flax fiber using compression-molding technology but no research has been done on fiber diameter effect on biocomposite's properties. Therefore, commercial thermoplastic high density polyethylene (HDPE) was selected for developing compression molded flax reinforced biocomposites with different diameter of flax fiber in this research. The main goal of this research was to develop compression molded biocomposite board using Saskatchewan flax fiber and the specific objective of the study was to investigate the effect of flax fiber diameter and flax fiber content on the properties of biocomposite. Differential scanning calorimetry (DSC) test and Scanning electron microscopy (SEM) test were performed to study the thermal and morphological properties of the flax fiber. Flax fiber and thermoplastic resin was mixed using a single-screw extruder to ensure homogenous mixing. HDPE-based biocomposites was developed through compression molding with three different diameter flax fiber (fine, medium, coarse) and four levels of fiber content (5%, 10%, 15%, and 20% by wt.). Medium flax fiber reinforced biocomposite showed the highest color index. While, fine flax fiber reinforced biocomposites showed the lowest density and water absorption. Fine flax fiber reinforced biocomposite also exhibited the highest tensile, flexural and hardness properties. Increase in fiber content increased composite color index, density, water absorption, Young's modulus, flexural strength, flexural modulus and hardness number. However, for the HDPE composites, tensile strength decreased with increased in fiber loading. Color index, density and water absorption showed the highest when fiber loading was 20%. Young's modulus, flexural strength, flexural modulus and hardness number showed the highest when fiber loading 15% in biocomposites. The biocomposites board with 5% flax fiber showed the highest tensile strength. By conventional graphical method, optimum values of biocomposite were found as Fine flax fiber (19.3 μ m) with 6.25 % (wt) fiber content.

MAJOR SUBJECTS OF B. SC. AGRICULTURAL ENGINEERING DEGREE:

Level- 1 Semester- 1	Level- 1 Semester- 2
<ol style="list-style-type: none"> 1. Mathematics- I 2. Physics 3. Chemistry 4. Engineering Drawing (Civil) 5. English 6. Engineering Shop 7. Soil Science 	<ol style="list-style-type: none"> 1. Mathematics- II 2. Computer Science 3. Workshop Technology 4. Engineering Drawing (Mechanical) 5. Engineering Mechanics 6. Agronomy 7. Surveying 8. Field Surveying

Level- 2 Semester- 1	Level- 2 Semester- 2
<ol style="list-style-type: none"> 1. Mathematics- III 2. Computer Application 3. Food Science 4. Fluid Mechanics 5. Thermodynamics 6. Agricultural Economics 7. Engineering Materials 	<ol style="list-style-type: none"> 1. Electrical Engineering 2. Hydraulics 3. Heat Engines 4. Strength of Materials 5. Materials and Cost Estimation 6. Rural Sociology 7. Statistics 8. Horticultural Science

Level- 3 Semester- 1	Level- 3 Semester- 2
<ol style="list-style-type: none"> 1. Agricultural Power 2. Electrical Machinery 3. Irrigation and Drainage Engineering 4. Groundwater Engineering 5. Soil Mechanics 6. Concrete Structure Design 	<ol style="list-style-type: none"> 1. Agricultural Machinery 2. Rural Electrification Engineering 3. Environmental Engineering 4. Agricultural Extension Education 5. Heat and Mass Transfer 6. Refrigeration and Air Conditioning Engineering

Level- 4 Semester- 1	Level- 4 Semester- 2
<ol style="list-style-type: none"> 1. Agricultural Mechanization 2. Pumps and Wells 3. Soil and Water Conservation Engineering 4. Computer Aided Design 5. Agricultural Process Engineering 6. Manufacturing Methods and Quality Control 7. Project Work and Seminar 	<ol style="list-style-type: none"> 1. Engineering Management 2. On-Farm Water Management 3. Bio-materials and Systems 4. Testing and Standardization of Agricultural Machinery 5. Project Planning and Evaluation 6. Industrial Training 7. Project Work and Report

Undergraduate Project Report Title

Selection of Minimum Cost Inputs for Boro Rice Cultivation

Abstract: The main purpose of the study was to select minimum cost inputs and selection of economic set of machines and implements for tilling to threshing operations in Boro rice cultivation. Secondary data from various sources were used in this piece of research. Some essential data were collected from primary sources through survey. Operating costs were calculated

and financial profitability was determined by two major on farm financial measurement techniques namely, Gross margin and Net margin, and Break-even analysis. Considering the minimum inputs cost, operating cost and capacity of alternatives for each operation, size of annual operational farm holdings and farmers access to the machines, a procedure was developed to select the minimum cost inputs and select an economic set of machines for each farm holdings. BRRRI dhan 29, Tractor, DTW, Drum seeder, Japanese Rice Weeder, Leaf Color Chart (LCC) technique, BAUzia fertilizer distributor, Knapsack Sprayer, Reaper and Closed drum power thresher were found suitable for seed, tilling, irrigation, seeding, weeding, fertilizer application techniques, fertilizer distributing, spraying, harvesting and threshing, respectively. BRRRI dhan 29 was found profitable among Boro rice variety and Leaf Colour Chart (LCC) appeared as best option for determining the amount of fertilizer requirement for Boro rice cultivation. For tilling operation, custom hire service of Tractor appeared profitable for a yearly operational farm holding of 8.29 hectares and above 8.29 hectares ownership of Tractor is profitable. For irrigation options, Hire DTW was found profitable for the farm size less than 2 hectares and own STW was found profitable for the farm size from 2 to 3 hectares. Drum seeder and Japanese Rice Weeder were found significantly superior for all farm holdings. BAUzia fertilizer distributor was found profitable to the farmers when the annual use exceeded 1.12 hectares. For spraying options, compression sprayer and knapsack sprayer could be beneficial to the farmers when the annual use exceed 2.05 hectares and 5.71 hectares, respectively. Reaper was found profitable to the farmers when the annual use exceeded 2.88 hectares. For threshing options, closed drum power thresher was found profitable to the farmers when the annual use exceed 7.32 hectares. A computer simulation model was developed using Microsoft Visual Basic 6.0 language for easy computation and selection of minimum cost inputs and economic set of machines and implements on the basis of farm size. Agricultural Engineers and DAE personnel may use this expert system as a guiding tool for suggesting farmers for Boro rice cultivation in Bangladesh.

I do hereby declare that the above statements are correct and complete to the best of my knowledge.

Anisur Rahman

Date: 26/06/2012