



Dhaka University
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Employee Name : Uttam Kumar Roy

Email : uttamkroy@du.ac.bd

Faculty : Institutes

Department : Institute of Leather Engineering
and Technology

Designation : Associate Professor

Education Information

Degree Name	Group/Major Subject	Board/Institute	Country	Passing Year	Result
Masters	Masters of Advanced Engineering Management (2 Years)	BUET, Dhaka	Bangladesh	2004	Second Class [B (65.4%) Grade]
Bachelor	B.Sc. in Mechanical Engineering (4 Years)	CUET, Chattogram	Bangladesh	1993	First Class (10th)
H.S.C	Science	Comilla Board	Bangladesh	1986	First Division
S.S.C	Science	Comilla Board	Bangladesh	1984	First Division

Award Information

Award Type	Award Title	Year	Country	Description
International	Learning to Lead and Manage TVET institutions in CBTA environment	2010	Philippines	Visited from 17.10.2010 to 30.10.2010 fund aided by ILO
National	Technical Education Award for B.Sc. in Mechanical Engineering (4 years)	1987	Bangladesh	

Project/Research Supervision

Level of Study	Title	Supervision	Co-Supervision	Name of Student	Area of Research	Current Completion
Masters	The Extraction of Collagen from Leather Solid Waste for synthesis of Bio-degradable packaging materials.	Uttam Kumar Roy		Md. Auli Ullah	Design for Environment	2023
Masters	Iron Tanning: An approach to develop an eco-friendly Tanning Process.	Uttam Kumar Roy		Nadia Mily	Design for Environment	2019
Masters	Extraction of Keratin Protein from hair as solid waste of tanneries and its application.	Uttam Kumar Roy		Prima Sarker	Waste recycle process	2019
Masters	Minimization of Environmental pollution from wet-blue effluent by using Nutshell as a low cost.	Uttam Kumar Roy		Md. Ahsan Habib	Environmental Pollution control	2019
Masters	Incineration of solid waste of leather products industry of Bangladesh: An Energy generating process.	Uttam Kumar Roy	Sujit Kumar Banik	Md. Khabir Hossain	Recycle energy from waste	2018
Masters	Leather lime fleshing waste: A potential source of biodiesel.	Uttam Kumar Roy	Sujit Kumar Banik	Md. Tahsin Eahteshum Nasif	Recycle energy from waste	2018
Masters	Determination of hazardous chromium (vi) in fish, water, plants in Hazaribagh, Bangladesh.	Uttam Kumar Roy		Tama Rani Sarker	Environmental Pollution Control	Current Year
Masters	Production of solid fuel from solid leather waste of leather garments and footwear industry in Bangladesh	Uttam Kumar Roy	Sujit Kumar Banik	Benu Chakrabarty	Recycle energy from waste.	Current Year
Masters	Production of Bio-diesel and Fat liquor from Leather Fleshing in Bangladesh.	Uttam Kumar Roy	Sujit Kumar Banik	Tonmoy Kumar Mondal	Recycle energy from waste	Current Year

Research Interest

Subject	Description
Production process and Product Design & Development	Biodiesel production from leather fleshing, Fat liquor from leather fleshing, Design for Manufacturing, Product Design, Design for Environment etc.
Environmental Pollution Control	Environmental pollution control from wet-blue effluent, Green Technology etc.
Recycle energy from waste	Generation of energy from waste, Search the source of biodiesel from leather fleshing waste etc.
Waste recycle process	Waste recycling, Waste management, Cleaner technology etc.
Supply Chain Management	Resource Planning, Inventory Control, Stores Management, Transportation planning, MRP, JIT, FIFO etc.

Project/Research Work

Subject	Project Name	Source of Fund	Fund Amount	From Date	To Date	Collaboration
Engineering and Applied Science	Extraction of Natural Lac Dye for Leather Dyeing and its Economic & Industrial Viability.	Ministry of Science & Technology	2,00,000/-	01-07-2017	30-06-2018	

Invited Talk

S L	Invited Talk
	No invited Talk is found

Collaboration & Membership

Collaboration & Membership Name	Type	Membership Year	Membership Expire Year
Institute of Engineers, Bangladesh (IEB)	Life Member (LFIEB-7007)	02-10-1998	Live Time
Network of Instrument Technical Personnel and User Scientists of Bangladesh (NITUB)	Life Member (LM-155)	2015	Live Time

Experience

Title	Organization	Location	From Date	To Date	Description
Associate Professor	University of Dhaka	Dhaka	15-01-2019	Currently Working	Teaching, Research
Students' Advisor (Administrative Job)	Institute of Leather Engineering and Technology, University of Dhaka	Dhaka, Bangladesh	16-02-2013	30-11-2020	Counselling of students of the Institute
Part time teacher	Daffodil International University	Dhaka	07-05-2008	30-06-2010	Taught some courses were Engineering Drawing, Engineering Material,
Assistant Professor	University of Dhaka	Dhaka	02-02-2000	14-01-2019	Teaching, Research
Lecturer (Workshop Superintendent)	Patuakhali Polytechnic Institute	Patuakhali	10-09-1994	01-02-2000	Teaching, Training
Mechanical Engineer	Bikalpa Engineering	Simultuli, Joydeppur, Gazipur, Dhaka	01-08-1993	09-09-1994	Factory Maintenance

Publication

Book	
1	<u>Uttam Kumar Roy</u> <i>Design and Pattern Making for Leather-Products Manufacture Practical</i> . Dhaka: Digit4 Publishing group, January, 2014 .
2	<u>Uttam Kumar Roy</u> <i>Design and Pattern Making for Leather goods and Garments Manufacture (Fundamentals, Technologies and Applications)</i> . Dhaka: Digit4 Publishing group, February, 2014 .
3	<u>Uttam Kumar Roy</u> <i>Mechanical Engineering Workshop practice for Footwear Manufacture</i> . Dhaka: Digit4 Publishing group, December, 2013 .
Book Section	
1	<u>Uttam Kumar Roy</u> "Gear-Train." Structural Mechanics and applied Mechanics. Md. Khalilur Rahman Patuakhali: Shahana Publishers, March, 1995 pp-224-239 .
Journal Article	
1	Dr.N.R.Dhar, <u>Uttam Kumar Roy</u> and Md. Golam Mohiuddin : Optimization of profit in leather finishing tanneries , Journal of the Institution of Engineers, Bangladesh Multidisciplinary , vol.28 , no.1 , pp.pp: 44-49 , December, 2003 .
2	Md. Mahamudul Hasan, Shahadat Hosain, Pinku Poddar, ABM Alauddin Chowdhury, Estiner W. Katengeza and <u>Uttam Kumar Roy</u> : Heavy metal toxicity from the leather industry in Bangladesh: a case study of human exposure in Dhaka industrial area , @ Springer Nature Switzerland AG 2019 , vol.(2019) 191: 530 , no.01-08-2019 , pp.pp-530(1) to 530(9) , August, 2019 .
3	Md. Abu Jafor Siddiki, Md. Jawad Hasan, <u>Uttam Kumar Roy</u> and Md. Mekarom Hossain : Green Curing Solutions for Leather: Valorizing Biomass as Sodium Chloride Alternatives , Springer Journals , 2025 .
4	Md. Mazharul Islam, Fatema Tujjohra, <u>Uttam K. Roy</u> and Mohammed Mizanur Rahman : A circular economy approach for utilization of tannery fleshing hydrolysate and kitchen wastes into organic fertilizer through enzymatic decomposition. , Biochemical Engineering Journal , vol.212 , 2024 .
5	Md. Abu SAYID MIA, Nadia Sultana MILY, Md. Arafat Al MAMUN, Md. Farhad ALI and <u>Uttam Kumar ROY</u> : Characterization of Enzyme-Treated Eco-friendly Iron Tanned Leather , Leather and Footwear Journal 24 (2024) 1 INCDTP-ICPI , pp.10 (73-82) , 2024 .
6	Md. Abu Jafor Siddiki, Md. Jawad Hasan, <u>Uttam Kumar Roy</u> , Md. Aftab Ali Shaikh and Md. Mekarom Hossain : Biomass-based curing agents for sustainable leather processing , ChemRxiv , vol.1 Cambridge University Press , pp.1-16 , 2023 .
7	Md. Mekarom Hossain and <u>Uttam Kumar Roy</u> : Monitoring the curing efficiency of a plant-based green engineered additive on caprine skin: a spectroscopic and chemometric novel approach , Heliyon Elsevier , pp.1-11 , 2023 .
8	Md. Sakhawat Hossain, S.M. Abidur Rahman, Md. Mizanur Rahaman, Md. Ali Muztaba and <u>Uttam Kumar Roy</u> : Arsenic Contamination in Soil, Vegetable, Groundwater, and Riverine Fish Species in Joypurhat, Bangladesh , INDONESIAN JOURNAL OF SOCIAL AND ENVIRONMENTAL ISSUES (IJSEI) , vol.Voloume-3 , no.Issue-1 IJSEI , pp.29-36 , 2022 .
9	Md. Mekarom Hossain *, Sobur Ahmed, Sharmin Zaman, Md. Latiful Bari and <u>Uttam Kumar Roy</u> : Polygonum hydropiper in goatskin preservation: A sustainable leather processing approach , Sustainable Chemistry and Pharmacy , vol.29 (2022) , no.100770 ELSEVIER , 2022 .
10	S. K. Banik1 *, T. E. Nafis2, <u>U. K. Roy</u> 2 and M. S. Islam1 : Leather processing industry waste (lime fleshing): A prospective substrate for production of biodiesel , Bangladesh Journal of Scientific and Industrial Research , vol.57(3), 2022 BCSIR , pp.131-138 , 2022 .
11	Md. Arafat Hossain, Mukta Rani Sarker, Md. Farhad Ali and <u>Uttam Kumar Roy</u> : Evaluation on Economic Loss for Rejection of Finished Leather in Bangladesh , Evaluation on Economic Loss for Rejection of Finished Leather in Bangladesh , vol.6 , no.2 , pp.91-96 , 2016 .
12	Mahamudul Hasan MD, Hossain S, Asaduzzaman AM, Houque MA and <u>Roy UK</u> : Prevalence of Health Diseases among Bangladeshi Tannery Workers and associated risk factors with workplace investigation , Journal of Pollution Effect and Control , vol.4 , no.4 , pp.pp-1 to 3 , 2016 .
Conference Proceedings	
1	Dr. N.R. Dhar and <u>Uttam Kumar Roy</u> "Optimization of production in tanneries through the process from wet-blue to crust-leather." <i>Proceedings of 5th International Mechanical Engineering Conference and 10th Annual paper meet</i> , pp. pp:28-33. Dhaka: Mechanical Engineering Division, The Institute of Engineers, Bangladesh, 30 September- 2 October-2005 .
2	MM Hasan, <u>Uttam Kumar Roy</u> , J Nakayama and T IIMOTO "Hazard and risk analysis of heavy metals in hair and nail due to environmental contamination in Bangladesh." <i>51st Annual Meeting of Japan Health Physics Society in Sapporo, Japan</i> , pp. 54. Sapporo, Japan: 29-30 June 2018 .
3	Banik, S.K., Nafis, T.E., <u>Roy, U.K.</u> and Islam, M.S. "Leather lime fleshing waste: A potential sources of Biodiesel." <i>International Conference on Science and Technology for Celebrating the Birth Centenary of Bangabandhu(ICSTB-2021): 6th Conference of Bangladesh Crystallographic Association</i> , pp. 41-41. Dhaka: 6th Conference of Bangladesh Crystallographic Association, 2021 .