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| ugc1evsjv‡`k **wek¦we`¨vjq gÄyix Kwgkb** |  | **evsjv‡`k wek¦we`¨vjq gÄyix Kwgkb**  University Grants Commission of Bangladesh  AvMviMuvI †k‡i evsjvbMi, XvKv-1207  website : www.ugc.gov.bd | **logo** |

বাংলাদেশ বিশ্ববিদ্যালয় মঞ্জুরী কমিশনের রিসার্চ সাপোর্ট এন্ড পাবলিকেশন ডিভিশনের বিজ্ঞান ও প্রযুক্তি শাখার ভৌত বিজ্ঞান উপ-শাখায় ২০২১-২২ অর্থবছরে প্রাপ্ত মোট ৮১টি গবেষণা প্রকল্প প্রস্তাব বিশেষজ্ঞ কর্তৃক মূল্যায়ন করা হয়। তন্মধ্যে ৬৯টি গবেষণা প্রকল্প (কমিশন কর্তৃক নির্ধারিত সূচকের ভিত্তিতে) চূড়ান্ত অনুমোদন দেয়া হয় এবং ১২ টি প্রকল্প প্রস্তাব বাতিল করা হয়। চুড়ান্ত অনুমোদিত ৬৯টি ও অননুমোদিত বা বাতিলকৃত ১২টি গবেষণা প্রকল্পের বিবরণ:-

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| **ক্রমিক নং** | **গবেষণা প্রকল্পের শিরোনাম** | **প্রকল্প পরিচালকের নাম ও ঠিকানা** | **মন্তব্য** |
|  | Assessment of Spatiotemporal Water Quality of the Kaptai Lake - An approach of Remote Sensing, Laboratory and Field investigation | Dr. Md. Bodruddoza Mia  Professor  Department of Geology  University of Dhaka | গ্রহণযোগ্য |
|  | An investigation of spatial and temporal patterns of microplastic pollution in sediments along the Kuakata seabeach and its adjacent areas. | Md. JobaerAlam  Associate Professor  Department of Oceanography, University of Dhaka,  Dhaka-1000 | গ্রহণযোগ্য |
|  | Applying Sequence Stratigraphic Framework to evaluate reservoir architecture of the Surma Group using Outcrop Analogues exposed in Olatong Anticline. | Janifar Hakim Lupin  Assistant Professor  Department of Geology  University of Dhaka | গ্রহণযোগ্য |
|  | PETROGRAPHIC ANALYSIS AND RESERVOIR  CHARACTERIZATION OF SYLHET LIMESTONE IN NORTHEASTERN PART OF BANGLADESH | Dr. Md. Anwar Hossain Bhuiyan  Professor, Department of  Geology, University of Dhaka, Dhaka 1000 | গ্রহণযোগ্য |
|  | Improving the Hydrometeorological Aspects of Flash Flood Forecasts in Bangladesh | Dr. Fatima Akter  Assistant Professor  Department of Meteorology  University of Dhaka, Dhaka-1000 | গ্রহণযোগ্য |
|  | Morphological modification and agricultural impact due to climate change in the Sylhet region over the last 50 years | Prof. Dr. Md Shofiqul Islam  Department of Petroleum and Mining Engineering, Shahjalal University of Science and Technology, Sylhet 3114, Bangladesh | গ্রহণযোগ্য |
|  | Hydrogeological study of the effects of climate change on water resources in the southwest coastal region of Bangladesh. | Sukhen Goswami  Assistant Professor and Chairman  Department of Geology and Mining  University of Barishal, Barishal 8254, Bangladesh. | গ্রহণযোগ্য |
|  | Evaluation and risks assessment of potentially toxic and heavy metal elements in the sediment of the Padma River, Bangladesh. | Dr. Dhiman Kumer Roy  Assistant Professor, Department of Geology & Mining, University of Barishal,Barishal-8254, Bangladesh | গ্রহণযোগ্য |
|  | Neoteric Solvents from Double Salt Ionic Liquids and Water: Molecular Level Interactions | Dr. Md. Abu Bin Hasan Susan  Department of Chemistry, University of Dhaka | গ্রহণযোগ্য |
|  | Synthesis of Silk Fibroin Stabilized Bismuth Nanoparticles for Catalytic Degradation of Organic Pollutants | Dr. Md. Abdur Rahman  Associate Professor  Department of Chemistry  Rajshahi University  Rajshahai 6205 | গ্রহণযোগ্য |
|  | Non-linear optical (NLO) materials of transition metal oxyfluorides with organic ligands: Synthesis, crystal structures, characterization, and properties. | Dr. Belal Ahmed  Associate Professor  Department of Chemistry  Shahjalal University of Science and Technology,  Sylhet-3114, Bangladesh | গ্রহণযোগ্য |
|  | Preparation and Characterization of Novel Co(II), Ni(II) and Cu(II) Metal Complexes with Substituted benzoyl hydrazine Schiff bases and benzylamine derivatives and Studies their Microbial Activities | Prof. Dr. Md. Motahar Hossain  Department of Chemistry  University of Rajshahi | গ্রহণযোগ্য নয় |
|  | Fabrication & performance evaluation of Graphene Oxide-Cellulose Nanocrystal composite membrane to remove dyes & heavy metals from wastewater. | Dr. Syed Shamsul Alam  Department of Chemistry  Shahjalal University of Science & Technology | গ্রহণযোগ্য |
|  | Utilization of waste rust to fabricate Pd δ+-OCNT@GO-Magnetite nanocomposite for degradation of organic dye through oxygen reduction reaction | Dr. S. M. Nizam Uddin,  Assistant Professor  Department of Chemistry  Shahjalal University of Science and Technology | গ্রহণযোগ্য |
|  | Synthesis, Antimicrobial and Computational Study of Chalcone based Thiazole Derivatives | Prof. Dr. Md. Mizanur Rahman Badal  Department of Chemistry  Khulna University of Engineering & Technology | গ্রহণযোগ্য নয় |
|  | Phosphorus speciation in different agricultural soils in Bangladesh | Mahbub Kabir, PhD  Professor & Chairman  Department of Chemistry  Jahangirnagar University  Savar, Dhaka 1342 | গ্রহণযোগ্য |
|  | Development of the functional electrochemical sensor for on-site measurement of the toxicant Hg in water and fish samples. | Dr. Shishir Kanti Pramanik  Associate Professor  Deparment of Chemistry, School of Physical Sciences, Shahjalal University of Science and Technology | গ্রহণযোগ্য |
|  | Polymer-Based Supercapattery: Towards a High-Density Energy Storage Device | Dr. A. B. M. Mamun Jamal, phd  Professor  Department of Chemistry  Khulna University of Engineering & Technology (KUET)  Khulna-9203, Bangladesh | গ্রহণযোগ্য |
|  | Effect of KCl addition on the synthesis of MnO2 cathode material for aqueous rechargeable zinc-ion batteries | Dr. Mohammad Abu Yousuf  Professor  Department of Chemistry  Khulna University of Engineering & Technology  Khulna-9203, Bangladesh. | গ্রহণযোগ্য |
|  | MXene-Graphitic Carbon Nitride (g-C3N4)/Alginate Transparent Films for UV and High Energy Blue Light (HEBL) Shielding Application. | Md. Mehedi Hasan Babu  Assistant Professor  Department of Applied Chemistry and Chemical Engineering,  Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj-8100. | গ্রহণযোগ্য |
|  | Electrochemical Detection and Characterization of Carcinogenic and Environmentally hazardous substance PFOA (perfluorooctanoic acid) and finding the presence of this deadly substance in water bodies mainly in Barishal Metropolitan area | Dr. Gazi Jahirul Islam  Assistant Professor  Department of Chemistry  University of Barishal  Barishal-8254 | গ্রহণযোগ্য নয় |
|  | Extraction and preparation and application of biodegradable raw leather re-tanning materials from trimming waste of tannery solids and its economical perspective in Bangladesh | Md. Farhad Ali  Associate Professor  Institute of Leather Engineering and Technology, University of Dhaka, Dhaka-1209 | গ্রহণযোগ্য |
|  | The *in-silico* study of the natural product nano-composition of *Punica granatum* leaf against colorectal cancer: Quantum Calculations and Machine Learning Approach | Dr. Md. Abdullah-Al-Mashud  Associate Professor  Dept. of Electrical and Electronic Engineering Islamic University  Kushtia-7003, Bangladesh. | গ্রহণযোগ্য |
|  | Impact of Sm3+ doping on the structural, morphologic and magnetic properties of sol – gel auto combustion synthesized Mg-Cu-Zn ferrites | Dr. M. Mizanur Rahman  Professor  Department of Physics  University of Dhaka | গ্রহণযোগ্য |
|  | Investigation of structural, electrical, and magnetic properties of La-doped Barium Titanate with Gadolinium / Erbium / Yttrium substitution | Dr. Mohammad Mahfuz Alam  Assistant Professor  Department of Physics,  University of Barishal, Barishal-8254,  Barishal, Bangladesh. | গ্রহণযোগ্য |
|  | Effect of Nd and Sc co-doping on structural, multiferroic and transport  properties of BiFeO3 multiferroic ceramics | Dr. Sajal Chandra Mazumdar  Department of Physics  Comilla University, Cumilla-3506. | গ্রহণযোগ্য |
|  | A study on the adsorption thermodynamics and performance parameters of zeolite-graphene composite based adsorption cooling system | Dr. Kaiser Ahmed Rocky  Assistant Professor  Department of Physics  University of Dhaka | গ্রহণযোগ্য |
|  | Growth and Structural Characterization of Kagome lattice compound MgxMn4-x(OH)6Br2 | Dr. Md. Mahbubur Rahman Bhuiyan  Associate Professor  Department of Physics  Jahangirnagar University  Savar, Dhaka-1342, Bangladesh | গ্রহণযোগ্য |
|  | Synthesis, characterization and fabrication of porous organosilicate thin films for volatile organic compound gas detection | Dr. Md. Rasadujjaman  Associate Professor  Department of Physics  Dhaka University of Engineering & Technology, Gazipur, Gazipur-1707 | গ্রহণযোগ্য |
|  | Synthesis and characterization of MFe12O19(M = Ba / Sr)hexaferrite nanoparticles for magnetic memory devices | Dr Md Samiul Islam Sarker  Professor  Department of Physics  University of Rajshahi | গ্রহণযোগ্য |
|  | Dysprosium ferrite-molybdenum disulfide photocatalyststo remediate environmental pollution | Prof. Dr. Mohammed Abdul Basith  Department of Physics, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh | গ্রহণযোগ্য |
|  | Effects of membrane potential on the magnetite nanoparticles induced deformation and poration in cell-mimetic lipid vesicles for biomedical application | Prof. Dr. Mohammad Abu Sayem Karal  Department of Physics  Bangladesh University of Engineering and Technology (BUET) | গ্রহণযোগ্য |
|  | Kinetics of molecular transport into GUV through nanopore to unveil clue for future drug design | Dr. Md. Khorshed Alam  Assistant Professor, Department of Physics, University of Barishal,Barishal-8254, Bangladesh | গ্রহণযোগ্য |
|  | Influence of Laser Orientation on Laser-driven Particle Acceleration. | Prof. Dr. Md. Masum Haider  Department of Physics,  Mawlana Bhashani Science and Technology University,  Santosh, Tangail-1902, Bangladesh. | গ্রহণযোগ্য নয় |
|  | Development of biosensor material for lung cancer detection | Prof. Dr. Md. Kabir Uddin Sikder  Department of Physics  Jahangirnagar University | গ্রহণযোগ্য |
|  | 'Effects of the Aqueous Extract of Vernoniaamygdalina Leaves in Alloxan Induced Diabetic Albino Rats." | Dr. Md Khairul Hasan Bhuiyan  Professor Department of Physics Bangladesh Agricultural University  Mymensingh | গ্রহণযোগ্য |
|  | Study on heat wave events at Khulna city, Bangladesh during pre-monsoon and monsoon season using WRF-ARW Model and analyze thermophysiological comfort indexes by RayMan model. | Dr. Md. Abdullah Elias Akhter  Professor, Department of Physics  Khulna University of Engineering & Technology (KUET)  Khulna 9203, Bangladesh | গ্রহণযোগ্য |
|  | Ag doped TiO2 nanocrystals decorated on Graphene Oxide (GO) nanosheets for the degradation of antibiotics | Dr. Mahabub Alam Bhuiyan  Associate Professor  Department of Physics  University of Dhaka, Dhaka-1000 | গ্রহণযোগ্য |
|  | Fabrication and characterization of CuBi2O4 thin films for solar cell application | Prof. Dr. Md. Sahab Uddin  Office Room No. 203, Department of Physics,  Dhaka University of Engineering & Technology, Gazipur, Gazipur-1707 | গ্রহণযোগ্য |
|  | Dislocation, Grain Boundary and Chemical Short Range Order Effects on Physical Properties of High Entropy Alloys | Dr. Md. Lokman Ali,  Associate Professor,  Department of Physics,  Pabna University of Science and Technology,  Pabna-6600, Bangladesh. | গ্রহণযোগ্য |
|  | Efficacy of Memory Specificity Training in reducing symptoms of obsessive-compulsive disorder | Dr. Md. Azharul Islam  Associate Professor, Department of Educational and Counselling Psychology, University of Dhaka | গ্রহণযোগ্য |
|  | Prosocial behavior guided by anintervention game approach can restrain the rapid transmission of COVID-19 pandemic | Dr. Muntasir Alam  Assistant Professor  Department of Applied Mathematics  University of Dhaka | গ্রহণযোগ্য |
|  | Stochastic Programming under continuous random variables and It’s Applications in Real Life | Professor Dr. Mohammad Babul Hasan  Department of Mathematics  University of Dhaka | গ্রহণযোগ্য |
|  | Discretionary Lane Changing decision for Avoiding the Rear Crash Using Quantal Response Equilibrium-based Game theory. | Dr. Md. Mijanoor Rahman  Associate Professor  Department of Mathematics  Mawlana Bhashani Science and Technology University  Santosh, Tangail-1902 | গ্রহণযোগ্য |
|  | Fuzzy Relations and its Applications in the Marketing Sector of Bangladesh | Dr. Salma Nasrin  Professor  Department of Mathematics,  University of Dhaka, Dhaka-1000 | গ্রহণযোগ্য |
|  | Simulation of gas flow mechanism in respiratory channel of human lung by lumped modeling technique. | Prof. Dr. Mahtab U. Ahmmed  Department of Mathematics  Jahangirnagar University, Savar, Dhaka-1342 | গ্রহণযোগ্য |
|  | Study of the Thermo Fluid Characteristics of Nanofluid in an Open Cavity: Way Forward to Industrial Application | Dr. Md. Manirul Alam Sarker, Professor  Department of Mathematics  Bangladesh University of Engineering and Technology, Dhaka-1000 | গ্রহণযোগ্য নয় |
|  | Construction of closed form wave solutions to the time fractional simplified modified Camassa-Holm equation and the (1+1)-dimensional time fractional dispersive modified Benjamin-Bona-Mahony equation | Dr. Md. Asaduzzaman  Professor  Department of Mathematics  Islamic University, Kushtia-7003, Bangladesh | গ্রহণযোগ্য |
|  | An analytical technique to obtain the wave solutions for soliton neuron model of nonlinear fractional order | Dr. Md. Nur Alam  Associate Professor,  Department of Mathematics,  Pabna University of Science and Technology,  Pabna-6600, Bangladesh. | গ্রহণযোগ্য |
|  | Bifurcation analysis and effects of parameters on Ion sound and Langmuir solitary waves to the stochastic models with noises | Prof. Dr. Harun-Or-Roshid  Department of Mathematics  Pabna University of Science and Technology  Pabna 6600, Bangladesh. | গ্রহণযোগ্য নয় |
|  | ANALYTICAL METHODS FOR FINDING SOLITON SOLUTIONS OF SOME NONLINEAR MODELS ARISING IN TELECOMMUNICATION INDUSTRY | Mohammad Safi Ullah  Professor, Dept. of Mathematics, Comilla University, Cumilla-6205. | গ্রহণযোগ্য নয় |
|  | Foreign Exchange Rates prediction using Fuzzy based Support Vector Regression | Md. Ashraful Alam  Associate Professor  Department of Mathematics  Jahangirnagar University  Savar, Dhaka-1342 | গ্রহণযোগ্য |
|  | Study of Riemann Surfaces Associated to Ramanujan’s Modular Equations | Dr. Md. Shafiul Alam  Assistant Professor,  Department of Mathematics,  University of Barishal, Barishal-8254 | গ্রহণযোগ্য |
|  | Controlling the damage caused by sudden waves in the sea by analytical approach | Md. Ekramul Islam Assistant Professor, Department of Mathematics, Pabna University of Science and Technology(PUST), Rajapur, Pabna-6600,Bangladesh  Cell:[+8801718577226](callto:+8801718577226) | গ্রহণযোগ্য |
|  | Nonlinear partial differential equation models for dynamics of invasive species | Dr Kamruzzaman Khan  Associate Professor  Department of Mathematics  Pabna University Science and Technology (PUST)  Pabna 6600, Bangladesh | গ্রহণযোগ্য |
|  | Effect of Magnetic dipole on Biomagnetic fluid flow containing magnetic particles past a thin needle using group method transformation | Dr. Md. Ghulam Murtaza Talukder  Associate Professor  Depeartment of Mathematics  Comilla University, Cumilla-3506 | গ্রহণযোগ্য |
|  | Application of Artificial Intelligence to Biomedical Raman Images for Disease Diagnosis | Professor Dr. Khalifa Mohammad Helal  Department of Mathematics  Comilla University  Cumilla-3506, Bangladesh. | গ্রহণযোগ্য |
|  | Computer simulation of biological fluid-particle transport through the human respiratory bronchioles and alveoli system | Dr. S. M. Chapal Hossain  Assistant Professor  Department of Applied Mathematics  University of Dhaka  Dhaka-1000, Bangladesh | গ্রহণযোগ্য |
|  | Mathematical modelling of strongly viscous flow in different aspect ratio convection cells representing the Earth’s mantle | **Dr. Tania Sharmin Khaleque**  **Associate Professor**  Department of Applied Mathematics  University of Dhaka, Dhaka-1000 | গ্রহণযোগ্য |
|  | Performance evaluation of magnetic materials Fe3O4, CoFe2O4, Mn-ZnFe2O4to the pure bloodincorporated with Biomagnetic thin layer flow and heat transfer via cylindrical surface assisted bylow Currie temperature and moderate saturated magnetization | Dr. Mohammad Ferdows  Professor  Department of Applied Mathematics, University of Dhaka, Dhaka-1000 | গ্রহণযোগ্য |
|  | Data-driven estimation/automation of urban airflow/air pollution | Dr. Md. Rakib Hossain  Assistant Professor  Department of Applied Mathematics  University of Dhaka | গ্রহণযোগ্য |
|  | Particle image velocimetry in assessing collectively moving self-propelled particles | Dr. Udoy Sankar Basak  Associate Professor  Department of Mathematics  Pabna University of Science and Technology  Pabna 6600, Bangladesh. | গ্রহণযোগ্য |
|  | Disease modeling with data science and spreading control strategies based on mathematical analysis | Dr. Md. Kamrujjaman  Associate Professor  Department of Mathematics  University of Dhaka, Dhaka, Bangladesh | গ্রহণযোগ্য |
|  | Statistical Analysis on post-operative pain management after Caesarean delivery in Rajshahi District; Bangladesh | Dr. Farhana Hasan  Associate Professor  Department of Statistics,  Faculty of Science, University of Rajshahi, Rajshahi-6205, Bangladesh | গ্রহণযোগ্য |
|  | Climate Vulnerability Prediction using Machine Learning Techniques in Wetland Zones of Sunamganj in Bangladesh. | Dr. Md. Azizul Baten  Professor  Department of Statistics, Shahjalal University of Science and Technology, Sylhet-3114, Bangladesh | গ্রহণযোগ্য |
|  | Zero-Inflated and Censored-Model Based Approach to TheAnalysis of The Frequency of Malnourished Children in Bangladesh | Md. Ershadul Haque  Assistant Professor  Department of Statistics  University of Dhaka | গ্রহণযোগ্য নয় |
|  | Modeling Overdispersed Sparse Count Data: An Application to the Number of Deaths of Children in Bangladesh | Dr Farzana Afroz  Assistant Professor  Department of Statistics  University of Dhaka | গ্রহণযোগ্য |
|  | Nutritional status of adults in Rajshahi District, Bangladesh: A comparative study between tribal and non-tribal population | Professor Dr. Abu Sayed Md. Al Mamun  Department of Statistics, University of Rajshahi, Rajshahi. | গ্রহণযোগ্য নয় |
|  | Determinants of Neonatal Morbidity and Mortality in Rajshahi Division of Bangladesh | Prof. Dr. Md. Monimul Huq  Department of Statistics  University of Rajshahi Phone:  Phone | গ্রহণযোগ্য |
|  | Nutritional status of school going children in the northern part of Bangladesh | Prof Dr. Md. Ripter Hossain  Department of Statistics  University of Rajshahi, Rajshahi. | গ্রহণযোগ্য |
|  | Attitude towards entrepreneurship among university students of Bangladesh: A survey in Rajshahi University | Prof. Dr. Md. Sabiruzzaman  Department of Statistics  University of Rajshahi, Rajshahi. | গ্রহণযোগ্য |
|  | A Computational Investigation on the Genetic Influence of Type 2 Diabetes (T2D) on Pancreatic Cancer and Drug Repurposing | Dr. Md. Hadiul Kabir  Associate Professor,  Dept. of Statistics,  University of Rajshahi,  Rajshahi-6205 | গ্রহণযোগ্য |
|  | Association of PGR Gene Polymorphisms with Multiple Cancers: An Evedence from Statistical Meta-Analysis | Dr. Saroje Kumar Sarker  Professor,  Dept. of Statistics,  University of Rajshahi,  Rajshahi-6205 | গ্রহণযোগ্য |
|  | Identification of Women Cancers Causing Common Genomic Biomarkers for Diagnosis, Prognosis and Therapies by using the Integrated Statistics and Bioinformatics Approaches | Professor Dr. Md. Nurul Haque Mollah  Head of Bioinformatics Lab. (Dry),  Dept. of Statistics  Universty of Rajshahi  Bangladesh | গ্রহণযোগ্য |
|  | A Bayesian Analysis with Multilevel Modelling of the Individual, Household and Regional Level Variability in Predictors of Antenatal Care Visit Among Women Reproductive Age in Bangladesh | Dr. Md. Rezaul Karim,  MSc (Statistics), MSc (Biostatistics), PhD. (KU Leuven)  Associate Professor, Department of Statistics  Jahangirnagar University, Savar, Dhaka, Bangladesh | গ্রহণযোগ্য নয় |
|  | Assessment of machine learning approach in the analysis of complex survey data: an example of antibiotics exposure among under five childrenin 92 lower- and middle-income countries | Dr. Md. Jamal Uddin  Professor  Department of Statistics  Shahjalal University of Science and Technology | গ্রহণযোগ্য |
|  | Perceiving the Conception of Psychological Stress among Job Seekers in Bangladesh and SDG Related Complexities Due to Economic Recession | Md. Saif Uddin Rashed  Assistant Professor  Statistics  University of Barishal | গ্রহণযোগ্য নয় |
|  | Artificial intelligence to predict dengue outbreaks and its validation in Bangladesh | Dr. Md. Siddikur Rahman  Associate Professor  Department of Statistics  Begum Rokeya University, Rangpur-5404,  Bangladesh | গ্রহণযোগ্য |
|  | Employ Machine Learning Techniques to Ensure Quality for Higher Educational Institutions in Bangladesh | Md. Farhad Hossain  Assistant Professor  Department of Statistics, Comilla University | গ্রহণযোগ্য নয় |
|  | Assessment of groundwater quality and their spatial distribution and human health risk in the south-central part of Bangladesh | Dr. Ayesha Akter, AssociateProfessor  Department of Emergency Management, Patuakhali Science and Technology University, Dumki, Patuakhali-8602, Bangladesh. | গ্রহণযোগ্য |
|  | Alternative, low-cost, and material-accessible fabrication technique for microfluidic devices | Dr. Gokul Chandra Biswas  Associate Professor  Dept. of Genetic Engineering & Biotechnology  School of Life Sciences  Shahjalal University of Science & Technology,  Sylhet-3114, BANGLADESH. | গ্রহণযোগ্য |