

# 2<sup>nd</sup> E-PALLI INTERNATIONAL CONFERENCES (EIC)

14 April 2024

Hotel Ambassador, Kathmandu, Nepal



Knowledge Partners



## BOOK OF ABSTRACTS

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## MESSAGE FROM CONVENER

The 2nd E-Palli International Conferences held on 14 April 2024 at Hotel Ambassador, Kathmandu, Nepal were a grand success. The two main conferences, E-Palli International Conference of Science, Technology, Engineering, and Mathematics, and E-Palli International Conference of Business, Arts, and Social Sciences, were attended by esteemed scientists, researchers, and scholars from around the world. The event was a platform for the exchange of knowledge, ideas, and perspectives on the latest advancements and challenges in various fields. The conference was graced by the presence of renowned and distinguished keynote speakers, including Prof. Dr. Abdul Rashid Bin Mohammed Shariff from University Putra Malaysia, Malaysia, Prof. Dr. James Harland, Director-STEMM Digital Innovation Center, RMIT University, Australia, Prof. Dr. Md. Forhad Hossain, Vice-Chancellor, Mawlana Bhashani Science and Technology University, Bangladesh, and Professor Dr. Jude W.R. Genilo, Pro-Vice Chancellor, The University of Liberal Arts Bangladesh, Dhaka, Bangladesh. These experts shared their valuable insights and research findings, inspiring the participants to delve deeper into their respective fields.

The conference also featured two distinguished speakers, Professor Dr. Al-Nakib Chowdhury, Head of the Department of Chemistry at Bangladesh University of Engineering and Technology, and former Vice Chancellor of Pabna University of Science and Technology, Bangladesh, and Professor Dr. Shyam Narayan Labh, from the Department of Zoology at Tribhuvan University, Kathmandu, Nepal, and Executive President of the Nepal Aquaculture Society (NAS). These speakers brought to light the latest developments and challenges in their respective areas of expertise, providing a valuable learning experience for all attendees. The proceedings of the conference were highly informative and thought-provoking, with discussions on a wide range of topics, including science, technology, engineering, mathematics, business, arts, and social sciences. The exchange of knowledge and ideas among the participants was truly enriching and helped in fostering collaborations and partnerships. The 2nd E-Palli International Conferences were a testament to the power of collective learning and collaboration in driving progress and innovation. The organizers and participants are grateful to the esteemed speakers and distinguished guests for their valuable contributions to the success of the event. It is hoped that such conferences will continue to be held in the future, providing a platform for scholars, researchers, and experts to come together and make significant contributions towards building a better world.

A handwritten signature in black ink, appearing to read 'Md Roshidul Hasan'.

### **Professor Md Roshidul Hasan**

Convener

Organizing Committee

2<sup>nd</sup> E-Palli International Conferences (EIC)

Kathmandu, Nepal, 2024



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# PROGRAM SCHEDULE

## PROGRAM SCHEDULE OF EIC 2024 14 APRIL 2024 (SUNDAY), NEPAL

Time	Activitie	Place	
8.00-8.45	Registration	Front desk	
8.45-9.00	SNACKS AND TEA/COFFEE		
9.00-9.05	Welcoming Guests and Participants to the Main Hall		
9.05-9.07	Trigger Talk by Emcee		
9.07-9.10	Introducing Speakers by Emcee		
9.10-9.15	<b>Welcome Speech:</b> <b>Prof. Md Roshidul Hasan</b> Convener, Organizing Committee		
9.15-9.40	<b>Keynote Speech 1:</b> <b>Prof. Dr. Abdul Rashid Bin Mohammed Shariff</b> Department of Biological and Agricultural Engineering, University Putra Malaysia, Malaysia & UT-UPM MoU Coordinator	EICSTEM	Open for all Participants
9.40-10.05	<b>Keynote Speech 2:</b> <b>Prof. Dr. James Harland</b> Director-STEMM Digital Innovation Center RMIT University, Australia		
10.05-10.30	<b>Keynote Speech 3:</b> <b>Prof. Dr. Md. Forhad Hossain</b> Vice-Chancellor, Mawlana Bhashani Science and Technology University, Bangladesh		
10.30-10.50	<b>Distinguished Speaker 1:</b> <b>Prof. Dr. Shyam Narayan Labh</b> Department of Zoology, Tribhuvan University Kathmandu, Nepal & Executive President, Nepal Aquaculture Society (NAS)		
10.50-11.15	TEA BREAK		
11.15-11.30	1 <b>Jubayer Ahamed</b> Analysis of Software Patterns to Resolve Design Problems	In-Person	EICSTEM
11.30-11.45	2 <b>Prof. Dr. Dip Nandi</b> Metaverse in Education: Prospects and Challenges	In-Person	

11.15-13.00		PAPER PRESENTATION		
11.45-12.00	3	<b>Md. Ikram Ansar Tuhin</b> Assessment of The Pest Management Strategy in The Agricultural Fields of Chittagong University Campus	Virtual	EICSTEM
12.00-12.15	4	<b>Rashed Mustafa</b> Ethnicity Detection with Convolutional Neural Network (CNN): Bangladesh Perspectives	In-Person	
12.15-12.30	5	<b>Dibash Chandra Karki</b> Role of Conditional Support to Reduce Food Insecurity During the Pandemic of Covid 19	In-Person	
12.30-12.45	6	<b>Md. Reazul Hoque</b> Greening Your Drive: A Method of Effective Conversion from IC Engine-Based Vehicle to EV	Virtual	
12.45-13.00	7	<b>Zannatul Nayem</b> A baseline survey on Praying Mantises in Chittagong University Campus, Bangladesh following a bibliographic analysis from 1981 to 2023	In-Person	
13.00-14.00	<b>LUNCH BREAK</b>			Hotel Cafe
14.00-16.15	<b>PAPER PRESENTATION</b>			
14.01- 14.15	8	<b>Prof. Md. Roshidul Hasan</b> Integrated Education 4.0: A Way Forward to Futuristic Education	In-Person	EICSTEM
14.16- 14.30	9	<b>Kuntala Chowdhury</b> Identifying the Resilience Mechanisms and Agricultural Knowledge of Female-Headed Households in Char Area of Bangladesh	Virtual	
14.31- 14.45	10	<b>Sajal Chowdhury</b> Experimental evaluation of subjective thermal perceptions for different local window screenings	Virtual	
14.46- 15.00	11	<b>Victor Stany Rozario</b> A Comprehensive Analysis on Non-Communicable Diseases by Quantitative Approach: Using Graphical Visualization	In-Person	
15.01- 15.15	12	<b>Bidya Maharjan</b> Human rights of people with psychosocial disability in Nepal	Virtual	EICBAS
15.16- 15.30	13	<b>Jannatul Mawa Mithila</b> Assessing the Reluctance Towards Research: A Case Study on the Students of the University of Chittagong, Bangladesh	Virtual	

**AFTERNOON SESSION**

Time	Activities		
15.31- 15.45	14 <b>Rowshon Ara Romke</b> Nexus between India and Bangladesh in the Liberation War of Bangladesh: Consequences of International Agreement	In-Person	EICBAS
15.46- 16.00	15 <b>Sharmin Joya</b> Understanding Social Discrimination and Victimization among the Hijra Community: An Empirical Study in Chattogram Metropolitan City	Virtual	
16.01- 16.15	16 <b>Nabila Ajam</b> Impact of Digital Marketing on Women’s Health, in the Context of Bangladesh	In-Person	
16.16-16.30	17 <b>Md. Asaduzzaman Mondol Asad</b> Exploring Sustainable Initiatives for Rural Women: Analysis of Economic Transformation of Women and Community Empowerment	Virtual	
16.31-16.45	18 <b>Chhatra Karki</b> Psychological Capital and Work Outcomes Across Sectors in Nepal	Virtual	
16.46-17.10	<b>Keynote Speech 4:</b> <b>Prof. Dr. Jude W. R. Genilo</b> Pro-Vice Chancellor, The University of Liberal Arts Bangladesh, Dhaka, Bangladesh	In Person	
17.11-17.30	<b>Distinguished Speaker 2:</b> <b>Prof. Dr. Al-Nakib Chowdhury</b> Head, Department of Chemistry, Bangladesh University of Engineering and Technology & Former Vice Chancellor, Pabna University of Science and Technology, Bangladesh		EICSTEM
17.31-17.40	<b>Closing Remarks and Vote of Thanks:</b> <b>Prof. Dr. Dip Nandi</b> Co-Convener, Organizing Committee		
17.41-18.00	<b>HI-TEA &amp; END THE PROGRAM</b>		

## CONFERENCE ORGANIZING COMMITTEE

<b>Convener</b>	<b>Professor Md Roshidul Hasan</b> <i>Head of the Department</i> <i>Department of Computer Science and Information Technology</i> <i>Bangabandhu Sheikh Mujibur Rahman Agricultural University</i> <i>Bangladesh</i>
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## ANALYSIS OF SOFTWARE PATTERNS TO RESOLVE DESIGN PROBLEMS

**Jubayer Ahamed<sup>1\*</sup>, Mashiour Rahman<sup>1\*</sup>, Dip Nandi<sup>1</sup>**

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A reproducible solution to a frequently occurring problem in software design was described as a software pattern, also known as a design pattern. It was a tested method for resolving kinds of software design issues that had been classified and identified by several years of experience and best practices. The key to making safe and accessible software was good software design. There were different types of design problems. Solving those problems was very important to produce good and efficient software. There were some tools, techniques, and patterns to solve these problems. Software design knowledge could be effectively captured and communicated using design patterns. Within a particular context of software design, a software design pattern was a standardized, repeatable solution to a frequently -occurring problem. The patterns were effective for software design on several levels. In this paper, we identified the major design problems. Then we have analyzed those problems and present design patterns to develop an effective software design.

**Keywords:** Software Design, Design Problems, Behavioral Design Pattern, Creational Design Pattern, Structural Design Pattern

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## ASSESSMENT OF THE PEST MANAGEMENT STRATEGY IN THE AGRICULTURAL FIELDS OF CHITTAGONG UNIVERSITY CAMPUS

Md. Ikram Ansar Tuhin<sup>1</sup> , Fariha Binte Hossain<sup>2</sup>

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A study was conducted on farmers in the agricultural fields at Chittagong University Campus from July, 2023 to December, 2023. The purpose of this experiment was to determine the farmers' level of knowledge on Integrated Pest management (IPM) and actual use of IPM techniques on their fields. The respondents were solely seen using the chemical based pest management method (100%). When applying pesticides maximum (60%) responders did not appear to be wearing any PPE (Personal Protective Equipment). Of these highest number (50%) sought guidance from agrovets, while 30% handled all agricultural tasks using their own expertise. 70% of farmers have no knowledge on banned pesticides. The farmers appeared to have no (100%) understanding of the significance of natural enemies and to be utterly uninformed of such information. 30% of farmers expressed no desire in receiving any training, whereas 70% had recently undergone training in agricultural operations. The majority (60%) appeared to perform crop rotation, whilst minority (40%) apparently did not. Results showed a deficiency in maintaining a quality agricultural practices. So, the farmers in the research area demonstrated a lack of knowledge regarding IPM practices.

**Keywords:** Pest, Integrated Pest Management, Personal Protective Equipment, Pesticide, Banned Pesticide

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## ETHNICITY DETECTION WITH CONVOLUTIONAL NEURAL NETWORK (CNN): BANGLADESH PERSPECTIVES

Sultana Tasnim Jahan<sup>1</sup>, Rashed Mustafa<sup>1\*</sup>

important in a number of disciplines, including social sciences, demographics, and computer vision. With a focus on Bangladesh's complex cultural landscape, we describe in this paper a novel method for ethnicity detection using convolutional neural networks (CNNs). We gathered a dataset of photographs depicting members of the three main ethnic groups living in the Chittagong hill neighborhood: Chakma, Marma, and Tripura. Utilizing the DenseNet121 model's robust feature extraction skills, we customized the architecture to meet the needs of our particular ethnicity detection application. A wide range of performance indicators were used to train and assess our unique CNN model. The outcomes illustrate accurate ethnicity detection technology's potential for identifying and resolving social inequities while showcasing a promising level of accuracy. To address possible biases in the model's prediction, ethical considerations are also covered. Overall, this work advances knowledge of Bangladesh's ethnic variety and demonstrates the potential of CNNs for ethnicity detection. The results provide up new avenues for investigation and applications that advance a more diverse and inclusive society. This paper's primary contributions are the hands-on collection of a diverse dataset, the refinement of the DenseNet CNN architecture, and the advancement of ethnicity detection in the Bangladesh perspective, leveraging Computer Vision techniques.

**Keywords:** Ethnicity Detection, Bangladesh Perspective, CNN, Computer Vision, Facial Recognition

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## ROLE OF UNCONDITIONAL SUPPORT TO REDUCE FOOD INSECURITY DURING THE PANDEMIC OF COVID 19

Dibash Chandra Karki<sup>1\*</sup>

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Vulnerable populations are always highly affected by any disaster. They have deficient coping capacity as they depend on daily income activities and need a diversified source of income. So, those people are highly impacted by any disease. The result of such a disaster may lead to food insecurity. For the survey, 1,598 people who got unconditional support were under consideration. Out of the total population, 317 samples were surveyed using proportionate random sampling for the study. The research methodology is a Randomized Controlled Trial (RCT) with a Pretest-Posttest Design. A smart survey through KOBO tools was done using trained local enumerators. Data collected through the survey were downloaded to Excel and analysed using Excel. Source of income: It was observed that daily wage is the primary source of income for 84% of HHs, the remaining 16% for SMEs, agriculture, and others. Reduced Coping Strategy: Based on R-CSI calculation, 51.9% of HHs were food-secured before the support, which significantly increased to 87% after the support, and the percentage of food-insecure households reduced to 13% from 48.1%. Household dietary diversity: Cereal (99%) was the most consumed food type, while white tuber and root (2.2%) were the least consumed. Food consumed in four or more types increased from 42% to 87%. Livelihood Coping Strategies indicator (L-CSI) was used as a descriptor of a household's coping capacity alongside the R-CSI. The responses were categorised into stress, crisis, and emergency strategies. The number of HHs under the crisis category reduced from 15.4% to 4.1%. Similarly, the number of households under the Emergency category reduced from 12.3% to 3.8%, and the number of crises reduced from 58.2 % to 6.8%. The study showed from the calculation R-CS that conditional support of the vulnerable people increased by nearly one-third (35%) within a month of support and helped them with coping strategies.

**Keywords:** Livelihood Coping Strategies Index, Reduced Coping Strategy Index

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## GREENING YOUR DRIVE: A METHOD OF EFFECTIVE CONVERSION FROM IC ENGINE BASED VEHICLE TO EV

**Md. Reazul Hoque<sup>1\*</sup>**

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This research presents the most efficient method for turning vehicles with internal combustion engines (IC engines) into electric vehicles (EVs). With an emphasis on reducing the environmental footprint and optimizing energy efficiency, our strategy includes cutting-edge technology in electric powertrain parts, power electronics, and battery storage systems. This paper assesses performance indicators by thoroughly analyzing the integration of new electric drivetrain components and the retrofitting of old ones, including motor starting and energy usage. To produce energy-efficient EVs, we suggest a supercapacitor bank and an effective battery cooling system. The recommended approach, Safety concerns, environmental advantages, and economic viability are also covered. The suggested approach shows promise in terms of lower production of greenhouse gases, increased range, and cost-effectiveness. The results provide an efficient way of battery cooling system and efficient use of battery storage by integrating a supercapacitor bank. The outcomes support the worldwide trend towards environmentally sound methods of transportation by providing important insights that will accelerate the widespread use of sustainable EVs.

**Keywords:** Battery Cooling System, Electric Vehicle, Internal Combustion (IC) Engine, Conversion, Supercapacitor

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**A BASELINE SURVEY ON PRAYING MANTISES IN CHITTAGONG  
UNIVERSITY CAMPUS, BANGLADESH FOLLOWING A BIBLIOGRAPHIC  
ANALYSIS FROM 1981 TO 2023**

**Nayem, Z.<sup>1\*</sup>, Sharna, S. A.<sup>1</sup>, Emon, M. A. R.<sup>1</sup>, Rahman, A.<sup>1</sup>, Fiha, R. R.<sup>1</sup>, Karima, N. T.<sup>1</sup>,  
Rahman, M. T.<sup>1</sup>, Afra, A. S.<sup>1</sup>, Akter, S.<sup>1</sup>, & Akter, R.<sup>1</sup>**

Praying mantises are carnivorous predators that play a vital role in various ecosystems worldwide. There are over 2300 species of praying mantises across 15 families. Despite their ecological significance, studies on praying mantis species remain scarce in many regions including Bangladesh. This study aims to address this research gap by conducting behavioural observations, morphological comparisons, and species identification of praying mantis populations on the Chittagong University campus in Bangladesh. To achieve the study's objectives, field surveys and sampling efforts were conducted from July to September 2023, targeting eight selected sites with diverse vegetation. Specimens were collected using sweep nets and subjected to morphometric analyses in the laboratory. The results revealed significant morphological variations between the two species and provided insights into their ecological roles and behaviours. Furthermore, bibliometric analysis and literature review demonstrated a dearth of research on praying mantises in Bangladesh. This highlights the need for focused studies in this region. While there is a notable increase in scientific publications on praying mantises globally, there remains a conspicuous absence of research on praying mantises in Bangladesh, presenting a compelling opportunity for future investigations in entomology. A total of 5 green Mantises and 4 brown Mantises (both from Family: Mantidae) were found throughout the study period. Green Mantises were more active and bigger than the brown Mantis. The study's findings underscore the importance of studying praying mantis populations in Bangladesh to enhance biodiversity conservation efforts, understand ecological dynamics, and promote entomological research and innovation.

**Keywords:** Mantis, Mantodea, Morphology, Morphometry, Behavior, Praying Mantis, Brown Praying Mantis, Green Praying Mantis

<sup>1</sup> Entomological Research and Innovation Lab, Department of Zoology, University of Chittagong, Bangladesh

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## IDENTIFYING THE RESILIENCE MECHANISMS AND AGRICULTURAL KNOWLEDGE OF FEMALE-HEADED HOUSEHOLDS IN CHAR AREA OF BANGLADESH

Kuntala Chowdhury<sup>1\*</sup>

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This study explored the resilience mechanisms among female-headed households of char area/ riverine island and explored the adoption of climate-smart agricultural knowledge among them. Almost all of the female-headed households adopted alternative livelihood and crop diversification strategies to adapt to climate-induced areas. To understand the position of female female-headed households this study adopted qualitative research methodology and conducted semi-structured interviews among the heads of Female female-headed households. Also, key informant interviews have been conducted among the agriculture officers and women activists who are creating awareness among women. Considering the pre-existing inequalities in the char area, this study adopted feminist political ecology to understand further vulnerabilities and violence against women which is limiting the opportunities among the head of female-headed households. It has been noticed that the combination of indigenous knowledge and climate-smart agricultural knowledge is making these women more resilient. However, the existing conservative mindset is limiting the mobility of female farmers as well as imposing on them not to expand their market linkage. Therefore, female farmers of female-headed households are being deprived of updated information like male farmers. This study will suggest policies that can uplift the status of female farmers as well as increase their resilience strategies and climate-smart agricultural knowledge.

**Keywords:** Resilience Mechanism, Climate Smart Agricultural Knowledge, Female-Headed Household, Feminist Political Ecology, Pre-Existing Inequalities

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## EXPERIMENTAL EVALUATION OF SUBJECTIVE THERMAL PERCEPTIONS FOR DIFFERENT LOCAL WINDOW SCREENINGS

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In tropical climate, restricting convective gain while allowing cross ventilation creates paradoxical difficulty regarding indoor thermal comfort. Changing global climate gives new dimensions to the scenario results in subsequent pressure on increasing energy demand towards thermal comfort. Passive techniques can be a good way to deal with the problem. However, occupants' thermal perception may vary from person to person for a definite indoor environmental setup. Perception of subjective thermal comfort is crucial for human health and wellbeing which in turns effects performance. In the current study evaluation of subjective thermal performance regarding improved indoor thermal comfort has been studied for three different local window screening: i) plastic bottle with its wider face towards wind direction, ii) plastic bottle with its narrower face towards wind direction and iii) perforated bamboo screen. Six subjects: four female and two male (ages between 22-24), have been investigated for 30mins. in an experimental simulation chamber for three consecutive days. Questionnaire regarding thermal sensation and perception has been prepared to collect subjective response at 10mins. interval. From the experiment it is seen that subjective responses varies for different window screenings as well as for a specific indoor thermal condition created with definite screening. Subjects find the indoor environment comfortable for screening with plastic bottle with its wider face towards wind direction compared to other two. Bamboo screening has comparatively better performance than the screening plastic bottle with its narrower face towards wind direction. The current analysis only considers the thermal sensation of the subject and further extension of study considering factors like the subject's site-specific thermal sensation and other psychological effects can contribute towards improving indoor thermal comfort in tropics towards human health and wellbeing.

**Keywords:** Thermal comfort, Subjective perception, Window screening, Thermal performance, Tropics.

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## A COMPREHENSIVE ANALYSIS ON NON-COMMUNICABLE DISEASES BY QUANTITATIVE APPROACH: USING GRAPHICAL VISUALIZATION

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Non-communicable diseases (NCDs) have already become major killers in Bangladesh. Once NCDs are developed, they become chronic health and economic problems. Their primary prevention is linked to their common risk factors. This study was conducted to visualize the trend of the diseases along with the age factor in rural areas of Bangladesh. A quantitative method was used throughout the research to reach the desired goal of this study. The data was collected from a medical association to use in this research and for processing the graphical visualization some preprocessing techniques are also applied on the raw data. After completing the research, the researchers found the percentage of the patients according to the diseases and the disease count along with the patients' age. The outcome is totally represented in graphical visualization. This research will help to find the numeric measurement of a particular disease considering age factor which can help to reduce the issues in medical sectors.

**Keywords:** Graphical Visualization, Non-Communicable Diseases, Rural Area

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## HUMAN RIGHTS OF PEOPLE WITH PSYCHOSOCIAL DISABILITY IN NEPAL

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ESIEFARIENRHE Bukohwo Michael<sup>3</sup>, and IBITOYE Joshua Seyi<sup>4</sup>

Nepal suffers from a high prevalence of mental illness that is largely unaddressed. Yet pervasive social stigma and lack of awareness and political commitment relegate mental health to the bottom of the political agenda and the government only provides a scarce and fragmented mental healthcare system. Mental health in Nepal primarily emphasizes biomedical interventions with limited attention to human rights dimensions. Nepal ratified the Convention on the Rights of Persons with Disabilities (CRPD) and its Optional Protocol on May 7, 2010. This ratification of the convention should have been reflected in the country's national legal framework, development planning and budgeting, and related policies to ensure better implementation. The UNCRPD was meant to change the way nation states understand psychosocial disability. The study attempts to analyse the barriers embedded in a legal and right-based approach to mental health practice in Nepal and explains the connections between existing laws and policies by seeking responses from people with psychosocial disabilities, their family members, policymakers, lawyers, human rights advocates, NGO workers, researchers and medical practitioners. In collaboration with a local NGO, 4 in-depth case studies will be presented from the local perspectives that generate a deeper understanding of the localized interactions. The research will attempt to present these case studies in a way that provides the reader with a look into the day-to-day realities of the community members in Nepal. In conclusion the study demonstrates the importance of a strong human rights based quality practice that builds confidence to engage people with psychosocial disability and their family members, the community as well as mental health service providers.

**Keywords:** Mental Health, Psychosocial Disability, Legal, Rights-Based Approach, Policies, Case Study

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## ASSESSING THE RELUCTANCE TOWARDS RESEARCH: A CASE STUDY ON THE STUDENTS OF THE UNIVERSITY OF CHITTAGONG, BANGLADESH

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The students at public universities in Bangladesh show reluctance or a lack of interest when it comes to participating in research activities. Many underlying causes that prevent students from actively participating in research projects can be the reason behind this reluctance. To analyze the causes of this hesitation and gain an understanding of the students' perspectives, a thorough case study was carried out from June 2023 to February 2024. This case study aimed to evaluate the students at the University of Chittagong's resistance to conducting research. Significant challenges observed in this study included a lack of information on research, insufficient supervision or mentorship, motivation concerns, a severe academic burden, restricted access to research resources, limited access to respondents, and a refusal to share data. To address these challenges and foster a research-friendly environment, it is recommended that research awareness programs be strengthened, mentorship and guidance be strengthened, academic workloads be balanced, access to research materials be improved, a culture of data sharing be promoted, and interdisciplinary research opportunities be encouraged.

**Keywords:** Research Activities, Students, Bangladesh

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## NEXUS BETWEEN INDIA AND BANGLADESH IN THE LIBERATION WAR OF BANGLADESH: CONSEQUENCES OF INTERNATIONAL AGREEMENT

Rowshon Ara Romke<sup>1\*</sup>

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The support of India and the Soviet Union was very important in the liberation war in Bangladesh. Why did they support and why did on August 9, 1971, the Foreign Ministers of India and the Union of Soviet Socialist Republics (USSR) signed a treaty of “Peace, Friendship and Cooperation” on the eve of the liberation war in Bangladesh? The present study will investigate these research questions through secondary methods. The study is descriptive, and the study is part of history. For this reason, a historical approach and secondary sources were used. The historical review method has been followed because the study is of contemporary international relations. The historic Indo-Soviet Treaty had an immediate impact on the decisive battle between India and Pakistan in the eastern war theater. This essay deals with the explanation for establishing a treaty that was signed on August 9, 1971, between the Soviet Union and India. A focus has been made on the reasons for India’s brightest role in the liberation war in Bangladesh. This paper also highlights that the friendship treaty between these two countries was not signed to help and aid East Pakistan, but its background prevailed in the 1955 Bandung conference and the USSR’s involvement in the liberation war of Bangladesh in the context of Soviet-American rivalry during the Cold War. But it was spread out in 1969, and on August 9, 1971, the Foreign Minister of India and the Soviet Union signed the treaty “Peace, Friendship, and Cooperation” at a special moment during the war of 1971.

**Keywords:** Indo-Soviet Friendship Treaty, Soviet Union, U.S.A, Pakistan, India, East Pakistan, Bangladesh, Liberation War, Struggle for Independence, Diplomatic initiatives

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## UNDERSTANDING SOCIAL DISCRIMINATION AND VICTIMIZATION AMONG THE HIJRA COMMUNITY: AN EMPIRICAL STUDY IN CHATTOGRAM METROPOLITAN CITY

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The Hijras in Bangladesh are the most susceptible demographic. This cohort of individuals has been subject to social exclusion and labeled as aberrant ever since the era of British colonialism. The Hijra population in Bangladesh, who are generally viewed as gender non-conforming or third-gender, lives in a vulnerable environment characterized by social and economic inequality. This research monograph explored the intricate web of discrimination, and victimization that Hijras in Chattogram Metropolitan City were woven within. The study shed light on the complex experiences of victimization suffered by Hijras, including physical, sexual, and emotional abuse, discrimination in housing and work, and susceptibility to extortion and violence by law enforcement. Comprehensive qualitative research and both primary and secondary sources of data were used in this study. The data in this study were collected through methodological triangulation: Social Survey (face-to-face interviews with a questionnaire) and case study to obtain in-depth information about the problem. In-depth interviews and focus group discussions with members of the Hijra community and social workers from Chattogram District Social Welfare Organization formed the backbone of data collection conducted between July and November 2023. Key themes identified in the analysis included the causes of these disparities, revealing how religious convictions, legal systems, and sociocultural norms interacted to make the Hijra group feel marginalized and excluded. The findings underscored the heightened risk of mental health issues within the Hijra community of Chattogram Metropolitan City. Changes were needed across community and government structures, including education systems, to promote the inclusion of the Hijra community and to support their psychological well-being. In order to ensure equal rights and opportunities, it calls for stronger legal protections, policy changes, and the creation of community-based interventions and support programs. These will empower Hijras economically and give them the resources and safe spaces they need to thrive. Bangladesh may work toward a more just and equitable society for all of its residents, regardless of gender identity or expression, by encouraging inclusivity, understanding, and institutional reform.

**Keywords:** Discrimination, Exclusion, Hijra, Inequality, Victimization.

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## IMPACT OF DIGITAL MARKETING ON WOMEN'S HEALTH, IN THE CONTEXT OF BANGLADESH

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Digital marketing is the promotion of brands to connect with potential customers using the internet and other means of digital communication which helps in increasing global and local reach, brand awareness, engagement, huge customer base, improved customer experience, etc. Digital marketing is of great importance in its role in opening new Markets and helping to promote Products and services more. It fosters economic growth by facilitating e-commerce, creating job opportunities, enhancing market efficiency, and also significantly the competitiveness and expansion of business on a global scale. The health effects of digital marketers can include stress, burnout, sedentary lifestyle issues, back pain, problems with eyesight, and musculoskeletal problems. Moreover, in Digital marketing, women are much more affected by online harassment, pressure to conform to societal standards, and constant connectivity to social media can lead to feelings of inadequacy, stress, and anxiety. The study aimed to find out the impact of digital marketing on women's mental and physical health. A structured questionnaire with both closed and open-ended questions was prepared for the survey. The survey was conducted through the snowball sampling method. The study revealed that 26.6% of people couldn't get proper sleep, 51.6% had problems with their eyesight, 56.3% suffered from headaches, 43.8% suffered from migraine, 45.3% suffered from backache, 35.9% had low blood pressure, 20.3% were suffered from obesity, and 32.8% were with gastrointestinal issue, which might be due to excessive use of mobile phones for digital marketing purposes. Moreover, 12.5% of respondents agreed with the statement that "digital marketing is harmful to women's health".

**Keywords:** Digital Marketing, Women's Health, Impact of Digital Marketing, Women's Health in Bangladesh

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## EXPLORING SUSTAINABLE INITIATIVES FOR RURAL WOMEN: ANALYSIS OF ECONOMIC TRANSFORMATION OF WOMEN AND COMMUNITY EMPOWERMENT

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Bangladesh, a developing nation in South Asia, has been struggling with various challenges such as poverty, corruption, overpopulation, climate change, and violence against women ever since its independence. Half of Bangladesh's entire population consists of women, with a significant majority residing in rural areas and not participating in any economic activities. Excluding this portion of the population from participating in economic activity results in a fifty percent reduction in the development of the country. Several initiatives have been undertaken to enhance the economic well-being of women in these rural communities. This study investigates the actual circumstances of women, finds obstacles to their economic participation, and suggests measures that foster their involvement in income-generating activities. The study employed a combination of qualitative and quantitative research methods, directing the rural women of Lalmonirhat district through structured interviews and focus group discussions. Result shows that the rural women residing in this community possess inadequate levels of education and are subject to numerous prejudices. Consequently, they do not participate in any economic activities, and their fate remains unchanged by any sustainable development efforts. To improve their situation, the women in this area should increase their involvement in vocational education and gain access to information, communication, and technology. This will enable them to engage in income-generating activities and bring about sustainable improvements in their lives.

**Keywords:** Sustainable Development Goals (SDGs), Economic Empowerment, Rural Women

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