

ADITI MAHAVIDYALAYA

(UNIVERSITY OF DELHI)

Research & Development Cell

NEWSLETTER 2023-24

Message from Chairman

It is with a deep sense of responsibility and enthusiasm that I am committed to our institution's research agenda and fostering an environment conducive to scholarly excellence. Our committee's mission is to promote and support high-quality research across disciplines, encouraging interdisciplinary collaboration and innovative approaches to knowledge creation. Together, we have the opportunity to shape the intellectual landscape of our college and make significant contributions to our respective fields of study. I firmly believe in the power of collaboration and inclusivity in research. Your expertise and dedication are crucial as we navigate the complexities of academic research and strive for excellence. I am eager to work alongside each of you to explore new avenues for research funding, enhance research infrastructure, and celebrate the achievements of our faculty and students.



Prof. Ravinder Kumar



Prof. Mamta Sharma

Message from Principal

As Principal, I am committed to fostering a culture of rigorous inquiry, innovation, and academic excellence within our institution. Our committee plays a pivotal role in shaping the research agenda, supporting faculty research initiatives, and promoting interdisciplinary collaboration across departments. Together, we will strive to enhance our college's reputation as a hub for cutting-edge research and intellectual growth. I look forward to working closely with each of you, leveraging our collective expertise and passion for research to propel our institution to new heights.

Message from Convener

I am delighted to extend my warmest greetings as the Convener of our college's Research & Development Cell. It is with great enthusiasm that I embark on this journey with each of you, dedicated to fostering a vibrant culture of research and scholarly inquiry within our institution. Our committee's role is pivotal in guiding and supporting the diverse research endeavors of our faculty and students. Together, we have the opportunity to shape the future of research at Aditi Mahavidyalaya, advancing knowledge and contributing to our academic community and beyond. I am committed to ensuring that our committee operates with transparency, inclusivity, and a clear focus on excellence.



Prof. Bhawna Rajput

GLIMPSES 2023-24

Research is a pursuit integral to progress in any society. Its potential is immense and has been instrumental in bringing about constructive changes in societies in innumerable ways. Aditi Mahavidyalaya, as a premier institute of higher learning, is committed towards cultivating a meaningful research environment and expanding its benefits to the society. The college has institutionalized a Research & Development Cell to specifically focus on various areas of research.

VISION AND MISSION

"To create a research intensive environment which provides support to faculty's research endeavours and expand the research capacity and research portfolio of the faculty." The Research & Development Cell of the College counsels faculty members for research policies, procedures, initiatives and explores research collaborations with external researchers, including academic institutions, research agencies both domestically and overseas.

WEBINAR ON UNDERSTANDING RESEARCH MISCONDUCT: FABRICATION, FALSIFICATION AND PLAGIARISM (FFP)

Research & Development Cell organized an Interactive Awareness Session on "UNDERSTANDING RESEARCH MISCONDUCT: FABRICATION FALSIFICATION AND PLAGIARISM (FFP)" on 2nd May, 2024. The renowned Speaker Prof. (Dr.) Ramesh C. Gaur, Dean (Administration), Indira Gandhi National Centre for the Arts (IGNCA), New Delhi, Ministry of Culture, Government of India delivered a mesmerizing speech. All the students from various Departments were a part of this elucidating program. 143 students registered for the interactive session. All the students were very attentive and eagerly listened to the session.

The event started with the opening remarks by the convener of the committee Prof. Bhawna Rajput. She not only explained about the Research Misconduct but also taught students about Fabrication, Falsification and Plagiarism. Later the Principal of the College, Prof. Mamta Sharma motivated and enriched students with her energizing speech. She encouraged students to not compete with others but with oneself only. The resource person, Prof. (Dr.) Ramesh C. Gaur started the session by explaining that the basic purpose of the session is to raise awareness, sharing best practices, and promoting accountability. She reflected her profound knowledge on the topic and highlighted the importance of fostering a culture of integrity within academic and research institutions. It was an interactive and informative session, participants gained insights into proactive measures for preventing and detecting research misconduct. The event contributed to the ongoing efforts to uphold the highest standards of integrity.



UG Research Projects 2023-24

Solar Energy for Sustainable Development in Aditi Mahavidyalaya: Present Status, Installed Capacity and Future Prospects

PROJECT CODE: (F-NO/01/2022/UGRP)

Principal Investigator: Prof. Mamta Sharma (Chemistry)

Co- Principal Investigator: Dr. Shadab Khan (Geography)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved : Lucky Sindhu {B. A. (Hons) Geography 3rd Year}, Bhumika Atri {B. A. (Hons) Geography 3rd Year}, Aashi {B. A. (Hons) Geography 2nd Year}, Monali Gupta {B. A. (Hons) Geography 2nd Year}, Shrishti {B. A. (Hons) Geography 2nd Year}, Sweta Rathor {B. A. (Hons) Geography 2nd Year}, Neilakhonuo {B. A. (Hons) Geography 2nd Year}

Summary:

The present research along with Principal Investigator and Co- Investigator has included 7 students (Lucky, Bhumika, Shweta, Shrishti, Aashi, Monali and Neilakhomya) of the college. The whole report is based on primary and secondary data of solar energy. Primary data of solar energy consumption and generation has gathered from the period between 2020 to 2022 from college. Rest of the secondary information in the form of solar energy generation at world as well India level was collected by the students. Collected data then compared with Delhi and finally a primary survey was conducted in the college in the form of a awareness of solar energy in the college campus. 300 Students were the part of this survey. On the basis of collected data final report has been prepared and submitted to the convener of the project. After completion of the report, a plagiarism free research file submitted to the convener of the research and development cell of the college in Nov. 2023. The whole project was divided into 2 parts. One part of the project in the form of a paper has been published in "Akademos-2024" An Annual Peer Reviewed Research Journal, ISSN 2231-0584, Vol 18, 2024, of Kamala Nehru College (D.U.) as "The Role of Renewable Energy Generation in Climate Change Mitigation through Solar Power Production in India and Delhi" with Authors: Prof. Mamta Sharma, Principal, Dr. Shadab Khan, Assistant Professor, Aditi Mahavidyalaya The second paper, which published in "The geographical Observer" funded by ICSSR, US Library control No- SA68004330, Research Refereed Journal ISSN 0072-0925 Vol. 52 (A) 2022, by Meerut College, Geographical Society, Meerut-U.P



LINKAGES BETWEEN FINANCIAL AND SOCIAL PERFORMANCE OF MICROFINANCE INSTITUTIONS IN INDIA

PROJECT CODE: (F-NO/02/2022/UGRP)

Principal Investigator: Prof. Bhawna Rajput (Commerce)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved : Archita Malik {B. Com Hons 3rd year}, Disha Somani {B. Com Prog 3rd year}, Vanshika {B. Com Prog 3rd year}

Summary:

The study on 'Social and Financial Performance of Microfinance Institutions in India' delves deep into the Socio-economic impact of having Microfinance institutions in a developing country like India. The study attempts to discover and deduce the correlations between the social and financial performance of these organizations understanding the importance they hold in bridging the gaps between the haves and have nots to encourage financial inclusion and foster economic growth and sustenance for all. The study analyzed the data from 10 different MFIs in India and revealed that the social and financial performance indicators are positively correlated. MFIs expand their outreach and serve more clients, they generate more revenue, which in turn enables them to invest in social programs and initiatives that benefit their clients and communities. The cycle of mutual reinforcement creates a virtuous cycle where financial sustainability and social impact go hand in hand. By aligning their financial and social objectives, MFIs can enhance their long-term sustainability and resilience. Strong financial performance provides the resources and stability needed to maintain and expand social programs, while positive social impact enhances the institution's reputation, client loyalty, and community support, ultimately strengthening its financial position. The study also showed that MFIs function as NBFCs, companies, cooperatives, NGOs and Self-help groups in India and exhibit sustainable growth, profitability, portfolio quality and access to diverse funding sources. The social and financial performance of MFIs in India underscores their vital role in driving inclusive growth, fostering resilience, and advancing the well-being of marginalized and underserved populations. By balancing financial sustainability with social impact, MFIs have emerged as key agents of change, contributing to the achievement of sustainable development goals and the creation of a more inclusive and equitable society.



READING CHOICES OF LIBRARY USER STUDENTS DURING COVID 19 LOCKDOWN AND POST COVID: A GENDER IMPACT ASSESSMENT

PROJECT CODE: (F-NO/03/2022/UGRP)

Principal Investigators - Dr Punita Gupta (Education),

CO- Principal Investigators: Dr Poonam Yadav (Education), Mr Pankaj Kumar (Library)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved : {Aareba Hussain, Mahima, Sanjana Mehndiratta} B.El.Ed 4th year

Summary:

The Covid-19 pandemic has caused India to go through nearly two years of both flexible and strict lockdown. Due to shutdown, colleges and universities have also been impacted. E-resources are becoming indispensable in daily life. Whether it's for obtaining educational resources or buying for groceries or medications, people of all ages are glued to their screens, exploring the digital world to make their work more efficient and less stressful. This survey based

study attempted to comprehend the different standards that students apply while choosing electronic content. How do they approach web? How much time do they spend surfing and looking up content connected to courses and education? Is it random internet browsing or guided exploration? How does gender impact their choices? Understanding the availability of e-content and the specific e-needs of students was the purpose, as it will enable e-libraries to improve their infrastructure to better serve users both outside of lockdown scenarios and during lockdowns. Additionally, to determine if the lockdown has altered the reading choices even after it has been opened in offline mode. It will also be useful to determine whether the gender gap in resource and service accessibility was exacerbated by the digital divide. In what ways has the gender gap strengthened one gender over the other? How fewer learning opportunities, learning gaps, and learning loss have been caused by restricted access? This study will help libraries to be more gender sensitive and equipped to make the inclusive environment. The survey responses are collected from student users mainly from the college students and class 11 and 12 students of school. The survey respondents had voluntarily provided the survey response and no remuneration were paid for the same. The link of online survey was shared with users by email and whatsapp group messages and they voluntarily gave the feedback. And focus group discussions were done face to face. Students of 35 different school/ institutes/college and University of undergraduate and post graduate courses including the professional courses such as technology, management, medical and law participated in this study. Major findings of the research suggest that the students/ users have been shifted to more e options for reading during and post pandemic, some of them are aware of the e portals and e resources to access the authentic data and information. As per the suggestions of their teachers and friends some of them especially students of professional courses have done some online certificate courses along with their regular studies. They have taken up e- memberships of some reading clubs and libraries but they do not find these platforms cost effective. But there is a huge digital divide, a number of respondents found themselves uncomfortable with online learning solutions, they needed handholding. Almost all the respondents want to be oriented on how to access e resources and want their institutional libraries with more e resources. Data reveals that many students are unable to access e libraries and resources due to non/less availability of gadgets and internet facilities at home and at institutions as well. Female students expressed that gender play a crucial role in accessibility and availability. Large number of female students says there is no concept of leisure time reading as they are expected to do domestic chores after the college and being the girl they are never the first one or privileged to claim or access the resources. Lockdown in pandemic added this burden of household responsibilities multifold for them, the survey informed the reading as the main activity of the users during the lockdown and some of them are still prefer to read in their free time. This recommends and suggests that institutions to establish scalable and secure e library infrastructure and to acquire and procure more digital content e resources and provide better (fast, secure and reliable access) services to their users. Alongside users should be provided with the information related to free and authentic online and e libraries so that they can access them from the home set ups. Inter institute resource pool can prove one of the effective way to encourage and enhance reading habits amongst its users.



Building Awareness about Health, Nutrition and Life skill Education among Adolescents Girls and Young Women

PROJECT CODE: (F-NO/04/2022/UGRP)

Principal Investigators: Prof Manisha Wadhwa (Education)

CO- Principal Investigators: Prof Poonam Lakr(HDFE)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved : {Prerna Sharma , Sakshi Panwar , Aditi Kaushik} B.El.Ed 4th year

Objectives:

- To study the dietary habits and life style practices of girl adolescents and young women
- To create awareness about healthy dietary practices and healthy life style practices among girl adolescents and young women.

Sample: Phase 1 - 200 Girls of age 15 to 20 years Phase 2: 40 Girls

Summary:

- Developed 6 Modules: Healthy Dietary Practices, Healthy Lifestyle, Decision making, problem solving and critical thinking, Self-awareness and interpersonal relationships and Social Media in our Lives.
- Six workshops based on these modules were conducted to disseminate knowledge regarding a balanced diet, understanding food labels, healthy dietary practices, Self-concept, interpersonal relationship and social media in our lives.
- Developed an understanding of the importance of adopting a nutritious diet, leading an active lifestyle and Life skills of Decision making, Inter-personal Relationship and Time Management.



A Feasibility Analysis of Centralized versus Decentralized Wastewater Treatment Plants in Delhi

PROJECT CODE: (F-NO/05/2022/UGRP)

Principal Investigator : Dr SHIKHA YADAV(Geography)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved : {Shagun, Bharati, Disharaj} B.El.Ed 2nd year

Summary:

Globally, water availability crisis is emerging as a result of scarcity and contamination of water resources. The growing gap between the amount of wastewater generated and treated is one of the main reasons of water pollution. As a result, there has been a paradigm shift toward wastewater treatment and onsite reuse. Centralized wastewater treatment, widely practiced in developed areas, involves transporting wastewater from large urban areas to a large capacity plant using a single network of sewers, whereas decentralization is the concept of wastewater collection, treatment and reuse at or near its point of generation. Smaller decentralized plants may achieve extensive reclamation and wastewater management with energy-efficient reclaimed water pumping, modularized expansion and lower capital investment. We will try to devise a methodology to preliminarily assess these alternatives using local constraints and conduct a feasibility analysis for each option. Small-scale on-site sewage treatment plants (STPs) is an attractive solution addressing the problems of water pollution and scarcity, especially in rapidly urbanizing cities in developing countries, where centralized infrastructure for wastewater treatment is inadequate. But decentralized systems face several challenges (economic feasibility, public acceptance) that need to be better understood. The capital city of India, Delhi provides an excellent opportunity to evaluate such systems which may fix the problem of water scarcity. Therefore, this project would try to focus on Suitable strategies for sustainable reusing wastewater using decentralized wastewater management systems. This research will be an innovative step further to study the practices of the wastewater management from the various perspectives taking geographical, ecological and technological approach. The feasibility study takes into consideration the guidelines, appropriate technology and potential reuse options associated with the adoption of decentralized wastewater management. The purpose of the feasibility study is to determine the saving in freshwater use that can result from adoption of decentralized waste water management and onsite reuse.



Urban Agriculture And Waste Management: A Case Study of Clean India Mission In Delhi

PROJECT CODE: (F-NO/06/2022/UGRP)

Principal Investigator : Dr. Mamta Arora (Geography)

CO- Principal Investigator: Dr. Nalini Singh(History)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved : {Priti Kumari , Simran Shail} BA (H) Geography 3rd year

Summary:

Delhi is among the largest waste generating city of India. It has produced 11328.2 tonnes per day of municipal waste in 2022 and the trend of waste generation is constantly rising in Delhi due to increasing population and changing life style. Studies prove that waste in landfill sites are contributing to air pollution and eventually to climate change. Landfill sites are the major source of methane which is more potent than carbon dioxide. Not only air but it is continually contaminating the surface and underground water due to continual seepage. To overcome the problem of sanitation, Government of India has launched Clean India Mission. One significant component of the mission is solid waste management. Indian government has been putting a lot of efforts to overcome the problem of waste but unable to achieve the aim of garbage free India. The present study explored the role of urban agriculture in organic waste management and Clean India Mission using secondary and primary data. The secondary data was collected to understand the gap between waste generation and management in Delhi. On the other hand, 50 urban agriculturalists were interviewed from intra-urban areas of Delhi. The study has highlighted the waste management landscape at the MCD level and household level. Finding reveals that socio-institutional, educational and economic level play an important role in green and organic waste management. The chief inference emerged from the study is urban agriculture can aid in green waste management and achieve garbage free Delhi.



अंतरराष्ट्रीय उत्पाद की विज्ञापन अपील पर भारतीय सांस्कृतिक तत्क प्रभिःबुंड के प्रचार – प्रसार में क्रॉस सांस्कृतिक सामग्री का विश्लेषण और अददतत महाविद्यालय की छात्राओं पर उसके प्रभि की पड़ताल।

परियोजना का कोड: (F-NO/07/2022/UGRP)

मुख्य शोधकर्ता : प्रो (डॉ) नीलम राठी (हिंदी)

छात्र शोधकर्ता: मोना कु मारी,जिया कौतिक,सिल झा) बीए ऑनर्स (हिंदी पत्रकारिता एवं जनसंचार) तृतीय वर्ष

अनुसंधान परियोजना का कार्यकाल : 1 वर्ष

समापन का वर्ष : 2024

शोध सारांश:

विज्ञापन का दायरा बहुत व्यापक होता है। हिंदी मीडिया को प्रसारण टूल की तरह उपयोग करते हुए क्षेत्र, राज्य, राष्ट्र से होते हुए अपनी राजकीय उपजस्ति दिज करता है। डिजिटल एजेंसी का खाना भारतीय बिजार में बबकता है। डिजिटल बिजार से होते हुए भारतीय घरों में भी प्रि कर गया है। अमेरिका की बहुराष्ट्रीय कंपनी डोटमिनी पीज़ा के डिजिटल स्तर पर प्रसार पाते व्यापार ने भारतीयों के धियके को बदलकर रख ददया है। मीठे से अतततियों का सुगित भारतीय संस्कृति और परंपरा है। भारत के प्रत्येक प्रदि में अपनी – अपनी विविध प्रकार की तमठाइयां हैं दकन्तु के डबरी चाकलेट की विज्ञापन अपील कु छ मीठा हो िए अंतरराष्ट्रीय कं पनी द्वारा भारतीय सिदिना और संस्कृति के दोहन का ही रूप है। सुनियता का साभिं कर अंतर राष्ट्रीय बांड भारतीय बिजार ही नहीं अवपतु सांस्कृति ततक रूप से िनमानस को गहरे से प्रभावित कर रहे हैं। भारतीय बांड भी भारतीय सीमा को लांघकर विि में अपने उत्पाद के िरए भारतीय संस्कृति ततक प्रसार कर रहे हैं। िस्ति में विज्ञापन के द्वारा व्यापार में सीमाहीन विस्तार और क्रॉस संस्कृति ततक दकस प्रकार प्रभावित कर रही है। उनके अददतत महाविद्यालय की छात्राओं पर क्या प्रभि पड रहे हैं प्रिक्ट में इन्ही प्रभिों की पड़ताल की गई है।



The Interplay of Gender bias, Self-efficacy and Mental health among rural women

PROJECT CODE: (F-NO/08/2022/UGRP)

Principal Investigator: Prof. Priya Kanwar (Psychology)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved : {Shivani Sharma, Aalika Malik, Ritika Tyagi} B.A Programme 3rd year , Batch 2023

Summary:

The Aim of the study was to investigate the potential associations between gender bias, self-efficacy, and mental health among rural women. The hypothesis of the study was that gender bias negatively impacts the self-efficacy of rural women and self-efficacy mediates the relationship between gender bias and mental health among rural women. Higher levels of self-efficacy are associated with better mental health outcomes among rural women.

This study examined the relationship between gender bias, socio-economic status, self-efficacy, and mental health among rural women, who face constraints in expressing themselves and accessing resources. They often lack the freedom to explore solutions to their problems, leading to self-doubt, low self-esteem, and dependence on others. In contrast, those with access to resources are more likely to seek out options to address their challenges. The method used to collect data was through structured interviews and standardized questionnaires to assess gender bias, self-efficacy, and mental health outcomes among rural women. In conclusion, This study highlighted the complex relationships between gender bias, self-efficacy, and mental health among rural women, revealing that mental health outcomes are influenced by multiple factors beyond gender bias and self-efficacy. Future research should adopt a comprehensive approach, incorporating qualitative methods and exploring additional variables, to better understand and address mental health challenges in rural women



Psycho-Social Predictors of Drug Abuse in Indian Society

PROJECT CODE: (F-NO/09/2022/UGRP)

Principal Investigator: Dr. Ritu Sharma (Psychology)

Co-Principal Investigator: Prof. Mamta Sharma (Principal)

Tenure of Research project : 1 year, Year of Completion : 2024

Students Involved: Roshni Dhawan {B.A Programme (Psychology+Economics) Alumni, Aastha Mathpal{B.A programme (Psychology+Maths)} 3rd year

Summary:

The study aimed to (a) analyse the psychosocial causes for indulgence in substance/alcohol/drug use in individuals based on age, gender, education, and socioeconomic status. (b) To prepare a checklist of risk behaviour after the consumption of drugs/alcohol/substances. A purposive sampling method was used to select a sample size of 199 participants aged 18 years and above from Noida, Mehrauli, Chhatarpur, Rohini, Bawana and other rural and urban areas of Delhi NCR. The respondents were college students, working professionals and inmates of rehabilitation centres from Delhi NCR. DAST-20 and ASPFSA, a tailor-made test was used along with semi-structured interview method to collect data. Findings revealed that female substance users reported childhood trauma more often as compared to male substance users. Women were also found to use substances to achieve mental peace more often as compared to men. Families of older adults were more often comfortable in their substance use as compared to the families of younger adults. Lower levels of education were associated with higher likelihood of substance usage to change mood, relieve stress, having substance using peers, and being influenced by media. Non-heterosexual participants were found to face differing challenges as compared to heterosexual participants. Substance use among nuclear families was associated with media influence while joint families were associated with easy availability of substances. The factors neglecting family and unsuccessfully tried stopping were also recognized as dominant risk factors associated with substance use according to DAST-20.



STUDENT CORNER



Ms. Divya
B.Com(Hons.) 3rd year

The R&D Cell stands as a beacon of academic excellence and innovation within our institution. It not only fosters a spirit of inquiry and discovery among students but also prepares us to face the challenges of tomorrow's world with confidence. I am grateful for the opportunities it has provided me and look forward to contributing further to its endeavors in the future.

Personally, being a part of the R&D Cell has been a transformative experience. It has allowed me to delve deeper into my academic interests and gain practical insights that go beyond the confines of textbooks. The mentorship provided by faculty members has been invaluable in guiding me through various stages of research, from conceptualization to implementation.

The R&D cell continues to be a cornerstone of innovation and scholarly advancement. This dynamic cell serves as a collaborative platform where students and faculty engage in pioneering research and transformative projects. Our cell is also proud to support various research initiatives by assisting in grant acquisition and providing necessary resources. Our R&D Cell has hosted a series of insightful Workshops and Seminars featuring leading industry experts. These events have expanded our knowledge horizons. The R&D cell remains committed to fostering a culture of innovation and driving impactful research within our community.



Ms. Kashish
B.Com(Hons.) 3rd year