



BRAINWAR UNIVERSITY

**Annual SDG-3 Report
2023-24**

SDG 3: Good Health and Well Being
Ensure Healthy Lives and Promote Well-being for All at All Age

SDG 3: *Good Health and Well Being – Ensure Healthy Lives and Promote Well-being for All at All Age*

Institutional Commitment

Brainware University integrates health and well-being into its academic, research, and community missions. The University's Allied Health Sciences, Pharmacy, Biotechnology, Nursing and Hospital Management departments lead multiple community health initiatives, while the Research departments develop technologies to make healthcare accessible, data-driven, and affordable.

The core policy focus remains:

- Strengthening preventive and curative health awareness in the community.
- Encouraging applied research in diagnostics, pharmaceuticals, and medical devices.
- Fostering mental-health literacy and workplace wellness among students and staff.
- Aligning institutional practices with UN SDG 3 Targets 3.3, 3.4, 3.8, and 3.d.

Research, Innovation, and Intellectual Property

Brainware University demonstrated remarkable output in healthcare research and innovation during 2023–24, registering patents, publishing Scopus-indexed papers, and hosting translational-research conferences.

Patents and Designs (2023–24)

Title / Focus	Inventors	Relevance to SDG 3
<i>Portable Biomedical Refrigerator for Storage of Animal Tissue Samples</i>	Dr. Amartya De et al.	Preservation of biological samples improves healthcare logistics.
<i>Portable Device for Measuring HIV & Hepatitis Through Saliva</i>	Arijit Mallick et al.	Rapid, non-invasive disease detection in low-resource settings.
<i>Device for Detection of Melanoma Skin Cancer</i>	Dr. Bhakti Bhusan Barik et al.	Early cancer detection reduces mortality.
<i>AI-Enabled Smart Blood Test Report Analyzer</i>	Dr. Subrata Sinha et al.	Automation of diagnostic analytics for pathology labs.

<i>Biomedical Device for Visualizing Haematopoiesis as a Stochastic Process</i>	Mr. Saptarshi Das et al.	Advances understanding of blood-cell generation for disease modelling.
<i>AI-Based Laboratory Vacuum Evaporator for Pharmaceutical Use</i>	Ms. Prabha Manjari et al.	Sustainable, efficient pharmaceutical research tool.
<i>Anticancer Silver Nanoparticle from Fermented Water-Chestnut Extract</i>	Dr. Prashant Shukla et al.	Biogenic nanoparticles for affordable cancer therapy.
<i>Sugar-Free Wine from Mahua</i>	Dr. Prashant Shukla et al.	Nutritional innovation supporting rural health economies.

Impact: These healthcare patents reflect a move toward low-cost, AI-driven, and sustainable healthcare innovation—bridging laboratory science with real-world needs.

Research Publications (2023–24)

Selected Peer-Reviewed & Scopus Publications

Title	Authors	Publication	Theme
<i>Effectiveness of Instrument-Assisted Soft-Tissue Manipulation and Muscle Energy Technique on Neck Pain in College Students</i>	Sanhita Sengupta et al.	Int. Conf. on Translational Research (SERB-DST & CSIR)	Musculoskeletal wellness in youth.
<i>Effect of Indian Spices on Metabolic Syndrome, Brain, and Cognitive Disorders</i>	Dipanjana Ash et al.	<i>Medicinal Spices and Herbs from India</i> (SCOPUS)	Nutritional neuroscience.
<i>Mental Health and Well-Being in Sustainable Practices</i>	Vivek Barik et al.	<i>World Sustainability Series (WSUSE)</i> (Springer)	Sustainable mental-health promotion.
<i>Aneamia as an Emerging Threat in India</i>	Arun Nayak et al.	<i>Translational Research for Sustainable Health Care</i>	Public-health awareness.
<i>Novel Plant-Microbial Consortium for In-Situ Arsenic Bioremediation</i>	Puja Agnihotri et al.	Patent Filed (India 2024)	Environmental health and safe water.

<i>AI-Driven Smartphone Screening for Early Detection of Oral Potentially Malignant Disorders</i>	Vertika Rai et al.	<i>ICONSTEM 2024 (IEEE)</i>	Mobile diagnostics.
<i>Adenovirus Outbreaks: A Comprehensive Review of Epidemiology and Public-Health Considerations</i>	Subrata Paul et al.	<i>Reshaping Healthcare with Biomedical Advancements</i>	Infectious-disease analysis.
<i>Utilizing ANN and Deep Learning in Extended-Reality Environments for Psychological Issues</i>	Nobhonil Roy Choudhury et al.	<i>AI and IoT Technology for Smart Healthcare</i> (Taylor & Francis)	AI-driven therapy research.

Impact: The University’s cross-disciplinary research connects computing, medical sciences, and sustainability, addressing SDG 3 through innovation and technology transfer.

Health Outreach and Community Engagement

1 Preventive Healthcare and Awareness

- Mega Health Camps conducted jointly by School of Allied Health Sciences and NSS units at Barasat and Madhyamgram in 2023–24, serving over 2,800 residents with free general check-ups, blood-pressure and glucose screening, and counselling.
- Women’s Health Week (March 2024) focused on menstrual hygiene and nutrition awareness among adolescent girls in rural schools.
- Tobacco Awareness Drive led by physiotherapy and optometry students under the “Healthy Campus Mission” reached 1,500 students.

2 Rural Health and Nutrition Initiatives

- Nutrition Awareness Programme under *Community Well-Being* trained 250 women on balanced diet and food safety practices.
- Collaborative projects with Panchayats in North 24 Parganas focused on clean water access, waste-segregation training, and primary-care orientation for Anganwadi workers.
- Free eye-testing and cataract-screening camps conducted in association with *Disha Eye Hospital* and BWU Optometry Unit.

Mental Health and Wellness

Recognising mental well-being as integral to learning outcomes, Brainware University operationalised its department of Psychology.

Key programmes:

- “Mind Matters” interactive series (Jan–June 2024) with psychologists and counsellors from *Peerless Hospital* and *BWU Psychology Department*.
- *Stress-Management through Yoga* weekly classes for staff and students (average participation > 200).

Brainware University’s contribution to SDG 3 is defined by convergence—between technology and medicine, research and outreach, and innovation and compassion.

The institutional efforts across patents, health camps, awareness drives, and mental-wellness programmes collectively strengthen the fabric of preventive and affordable healthcare in West Bengal and beyond.

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