

# MTIN CONNECT



MARCH 2025



**CHARUSAT**<sup>®</sup>  
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

NAAC  
GRADE **A+**

25 years of excellence, trust, and innovation!



CHARUSAT proud to be awarded  
**Gujarat's Most Trusted Private University**  
by Divya Bhaskar.



## CHARUSAT AWARDED GUJARAT'S MOST TRUSTED PRIVATE UNIVERSITY BY DIVYA BHASKAR!

### A LEGACY OF 25 YEARS OF EXCELLENCE, INNOVATION, AND UNWAVERING TRUST!

# NATIONAL WORKSHOP ON EPIDEMIOLOGICAL RESEARCH AND BIOSTATISTICS



Manikaka Topawala Institute of Nursing (MTIN), in collaboration with the Society of Public Health Education, Research & Empowerment (SPHERE), successfully organized a National Workshop on Epidemiological Research and Biostatistics on March 17-18, 2025. The event saw enthusiastic participation from over 50 faculty members and MSc nursing students, engaging in sessions on public health research, epidemiological study designs, biostatistical methods, and sample size determination.

Renowned experts delivered insightful lectures on data collection techniques, statistical analysis, and research funding proposals, with hands-on activities and interactive exercises enhancing practical learning. The workshop provided a valuable platform for strengthening research skills and advancing evidence-based nursing practice.

# COMMUNITY EXTENSION INITIATIVES



## EXHIBITION ON PULMONARY TUBERCULOSIS AWARENESS AND PREVENTION

On March 1, 2025, 1st Semester B.Sc. Nursing students held a "Pulmonary Tuberculosis Awareness and Prevention" exhibition at Dr. N.D. Desai Hospital's Medical OPD. Through posters and discussions, they educated attendees on TB causes, symptoms, treatment, prevention, and government initiatives like NTEP and free treatment services.

## EXHIBITION ON SAFE GUARDING HEALTH WITH INFECTION CONTROL

On March 1, 2025, 3rd Semester B.Sc. Nursing students organized an infection control and prevention exhibition at Dr. N.D. Desai Hospital, enhancing awareness and knowledge on essential infection prevention measures. The exhibition helped patients and their relatives understand the importance of hygiene and infection control practices, empowering them to take preventive steps for better health and safety.



## EXHIBITION ON INCREASING AWARENESS ON FIRST AID RESPONSE

On March 7, 2025, 1st Semester B.Sc. Nursing students organized a health exhibition on "First Aid Response" at the Medicine OPD of Dr. N.D. Desai Hospital, Nadiad. The event was attended by patients, their relatives, hospital staff, and nursing students from other institutes along with their faculty. The students' efforts were highly appreciated and praised.

# COMMUNITY EXTENSION INITIATIVES



## ROLE PLAY ON CHILD SAFETY AT HOME

On March 8, 2025, 2nd Year G.N.M. students conducted a role-play on "Child Safety at Home" at Dr. N.D. Desai Hospital, Nadiad. The activity highlighted household accident prevention, emergency responses, and safety measures, emphasizing caregivers' roles in maintaining a secure home environment.



## EXHIBITION ON HEALTH & WELLNESS

On March 8, 1st Semester B.Sc. Nursing students held a "Health & Wellness" exhibition at SS Hospital, Petlad, to educate patients and families on health promotion. The event received enthusiastic support, with hospital staff praising the students' efforts in raising health awareness.

## EXHIBITION AND ROLE PLAY ON GLAUCOMA AWARENESS

On March 12, 2025, in collaboration with the Ophthalmology Department of S.S. Hospital, Petlad, we celebrated Glaucoma Week with student-led an informative exhibition and role play. The event highlighted glaucoma's risk factors, causes, symptoms, prevention, and treatment, receiving positive feedback from hospital staff.



# COMMUNITY EXTENSION INITIATIVES



## COMPREHENSIVE SCHOOL HEALTH ASSESSMENT PROGRAM, ROLE PLAY ON GOOD TOUCH AND BAD TOUCH AND EXHIBITION ON NUTRITION, HYGIENE AND MENSTRUAL HEALTH AT BANDHANI

On March 29, 2025, the Comprehensive School Health Assessment Program at Bandhani Prathmik Aarogya Shala organized by 3<sup>rd</sup> Year G.N.M. nursing, provided essential health checks for students in Standards 1 to 4, including height, weight, stunting, wasting, eye, and dental assessments. Students in Standards 5 to 8 engaged in an exhibition on nutrition, hygiene, and menstrual health, while a role play on 'Good Touch, Bad Touch' promoted awareness and safety.

# COMMUNITY EXTENSION INITIATIVES

## MTIN'S CONTRIBUTION TO DST-PURSE PROJECT



On March 20-21, 2025, 7th Semester B.Sc. Nursing students visited the Primary Health Centre, Changa, and organized a Community Awareness Program on Wastewater Treatment, Management, and Valorization into Value-Added Products with Zero Waste. The program was part of a Department of Science & Technology-PURSE funded project. On March 20, 2025, students conducted a rally, raising awareness through informative slogans promoting Reuse, Reduce & Recycle for water conservation. On March 21, 2025, they held a poster exhibition and role play, educating villagers on effective water management practices. Dr. Mansi Patel (AYUSH Medical Officer), Mr. Kalpesh (MPHS Supervisor), Sanabhai (Sarpanch of Changa Village), and the Police Station In-charge attended as chief guests. The event successfully engaged the local community, encouraging sustainable water conservation practices.





# ACADEMIC ENDEAVORS

## Visit to Badhir Vidhya Vihar, Nadiad: A Day of Learning and Empathy

On March 4, 2025, 2nd Year GNM students visited Badhir Vidhya Vihar in Nadiad, guided by Principal Ms. Pragna Gor. The visit provided insights into special education methods, assistive communication devices, and vocational training for special abled children. The students observed how communication devices support learning and interacted with the children, gaining a deeper understanding of their challenges. They also learned about the vocational training programs that help children develop practical skills for independence and future employment. The visit broadened students' perspectives, emphasizing the importance of inclusive education and vocational training for differently-abled individuals.



## Visit to Hindu Anath Ashram, Nadiad: Child Welfare and Rehabilitation Efforts

On March 4, 2025, 2nd Year GNM students visited the Hindu Anath Ashram in Nadiad. They observed the living conditions, educational and healthcare facilities provided to orphaned children. The students interacted with the children, learning about their routines and the role of caregivers in supporting their well-being. The visit highlighted the Ashram's efforts in rehabilitation, skill development, and social integration. The students also toured the Ashram's museum, which showcased its history and contributions to orphan care. The experience broadened the students' understanding of child care and the importance of supportive environments for vulnerable children.



# EXTRACURRICULAR ENGAGEMENTS



On March 8, 2025, the Women Development Cell, CHARUSAT, organized a 5.5 km Women's Day marathon from CHARUSAT to Changa and back. Mr. Anil Patidar, Assistant Professor at MTIN, secured second place in the male category. The event promoted fitness and women's empowerment and concluded with a felicitation ceremony.

On 12th March 2025, MTIN celebrated "RANGON KA JASHN" with vibrant Holi festivities on campus. Students, faculty, and staff participated enthusiastically, filling the day with colors, joy, and togetherness. The celebration highlighted the spirit of unity and the festive essence of Holi.



The CHARUSAT Badminton League 2025, held from March 26-28, 2025 featured 80 players in an auction-based team format, delivering thrilling matches and high energy. Dr. Anil Sharma, Principal of MTIN, was part of the champion team led by Devansh Java. The event celebrated teamwork, talent, and true sportsmanship.



# ALUMNI CONNECT

## CONGRATULATING OUR ALUMNI

Heartiest congratulations to Ms. Tanvi Patel (B.Sc. Nursing Batch 2009-2013) on her remarkable achievement of being selected as a State Tax Officer (GPSC Class 2).



Heartiest congratulations to Mr. Shyam Ashvinkumar Patel (B.Sc. Nursing Batch 2019-2023) on his achievement clearing the prestigious NCLEX-RN examination

## ECHOES OF OUR ALUMNI

**MS. SANGITA KATAD**  
**STAFF NURSE**  
**P.D.U. CIVIL HOSPITAL, RAJKOT**  
**B.Sc. Nursing Batch 2009-2013**



"My journey at MTIN has been nothing short of extraordinary. The institute stands as a beacon of excellence in nursing education, shaping students into competent and compassionate healthcare professionals.

One of the most remarkable aspects of my time at MTIN was the faculty—highly knowledgeable, passionate, and dedicated. Their commitment to teaching and mentorship extended beyond textbooks, fostering critical thinking, professional ethics, and hands-on expertise. They were not just educators but also role models who inspired me to strive for excellence in my nursing career.

MTIN provides exceptional hands-on training through well-equipped laboratories, cutting-edge simulation techniques, and clinical exposure at prestigious hospitals. These practical learning experiences enhanced my confidence and prepared me to handle real-life patient care with precision and empathy.

Today, as a staff nurse at P.D.U. Civil Hospital, Rajkot, I take immense pride in the knowledge and skills I have gained at MTIN. The unwavering support and world-class training I received have empowered me to serve patients with dedication and competence.

# FACULTY ACCOLADES



**Congratulations**  
Ph.D Dissertation

**Rameshwari Zala**  
Manikaka Topawala Institute of Nursing  
CHARUSAT University  
Changa, Gujarat

**Topic:**  
*Effectiveness of Motor-Cognitive Intervention on Working Memory Performance among Children with Specific Learning Disability: A Quasi Experimental Study*

**Code: PHD10**

## NATIONAL RECOGNITION FOR PIONEERING RESEARCH IN LEARNING DISABILITIES

Dr. Rameshwari Zala, Assistant Professor at MTIN, CHARUSAT, secured First Rank in the All India Outstanding Research Award for Nurses (Ph.D. Dissertation Category), organized by CNRS – North Zone and CBS Publishers, for her research titled "Effectiveness of Motor-Cognitive Intervention on Working Memory Performance Among Children with Specific Learning Disability," conducted under the supervision of Dr. Anil Sharma. Her research emphasizes the critical role of early screening and targeted motor-cognitive interventions in improving working memory performance among children diagnosed with Specific Learning Disability (SLD). This prestigious award was conferred upon Dr. Zala on February 28, 2025, in recognition of her outstanding contribution to the field of nursing research and child cognitive development.

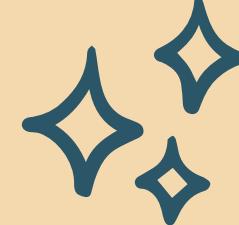


## MTIN FACULTY EARN RECOGNITION AT KDINSCON 2025

On March 6, 2025, at the National Conference KDINSCON 2025 hosted by KDINS and KDSAIL in Ahmedabad, MTIN faculty members earned top honors for their research contributions. Ms. Aarohi Fernandes won First Prize in Paper Presentation for her study on Classroom Emotional Climate and Psychological Well-Being, while Mr. Anil Kumar Patidar secured Third Prize for his research on Pathogens in Tertiary Care Hospitals. Additionally, Mr. Ravi Rai Dangi received First Prize in Poster Presentation for his work on AI in Low-Resource Healthcare Settings. These achievements highlight MTIN's strong commitment to innovation and excellence in nursing education.



# Insight Sharing with Nursing Fraternity



Dr. Anjali Tiwari, delivered an acclaimed session on AI-driven innovations in obstetric and gynecological care at the 4th National Conference on AI in Healthcare, held on March 20-21, 2025, showcasing impactful advancements in diagnostics and treatment.

She also, led a highly appreciated hands-on session on research proposal writing at the FDP organized by Bhaikaka University on March 25, 2025, offering practical insights to enhance funded research success.



**DR. ANJALI TIWARI**  
ASSOCIATE PROFESSOR  
MTIN CHARUSAT



**MS. BINAL JOSHI**  
ASSISTANT PROFESSOR  
MTIN CHARUSAT

A hands-on physical assessment session was conducted by Mrs. Binal Joshi at SBM Patel Nursing College on March 22, 2025, covering vital signs, neurological, cardiovascular, respiratory, gastrointestinal, and musculoskeletal assessments through practical and interactive training.

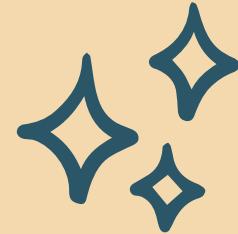
Dr. Deepak K conducted an insightful session on Reference Management during the Faculty Development Program at Bhaikaka University on March 24, 2025, emphasizing citation tools, plagiarism prevention, and research credibility.



**DR. DEEPAK K**  
ASSOCIATE PROFESSOR  
MTIN CHARUSAT



# Insight Sharing with Nursing Fraternity



**Ms. Hetal Shah conducted an expert session on Mental Health for 5th semester B.Sc. Nursing students at T. & T.V. Institute of Nursing, Surat, on March 27, 2025, covering psychological disorders, early interventions, and the nurse's role in psychiatric care.**

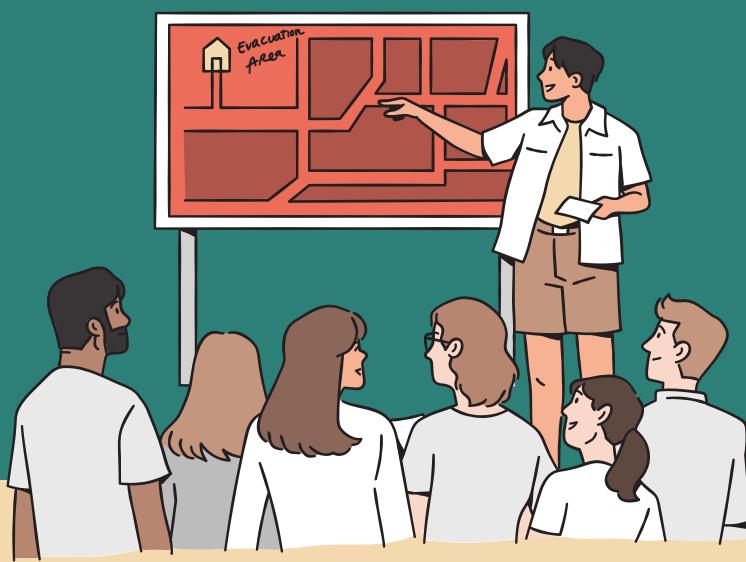


**MS. HETAL SHAH**  
ASSISTANT PROFESSOR  
MTIN CHARUSAT



**DR. RAMESHWARI ZALA**  
ASSISTANT PROFESSOR  
MTIN CHARUSAT

**Dr. Rameshwari Zala served as Observer Faculty for an intensive Advanced Neonatal Resuscitation Program at Bhaikaka University on March 29, 2025, guiding 25 delegates through hands-on training in updated NRP guidelines and essential neonatal care skills.**



# FACULTY CORNER

## KEEPING NEWBORNS WARM: UNDERSTANDING AND PREVENTING HYPOTHERMIA

Thermoregulation is the ability to maintain balance between heat production and heat loss in order to sustain body temperature within a normal range. Hypothermia may have serious metabolic consequences for all newborns. To minimize these effects, an environmental temperature at which the newborn has minimal rates of oxygen consumption and expends the least energy to maintain its temperature is needed. This is known as thermoneutral environment. The World Health Organization (WHO) defines neonatal hypothermia as an axillary temperature below 36.5°C (97.7°F) among newborns aged below 28 days. Normal axillary temperature is 36.5–37.5°C. Hypothermia is classified as mild (36.0–36.4°C), moderate (32.0–35.9°C), and severe (<32°C). Neonates produce heat mainly through nonshivering thermogenesis, which uses brown fat. When thermoreceptors detect low temperature, they increase sympathetic activity, stimulating beta-adrenergic receptors in brown fat. This raises cAMP levels, boosting metabolism and heat production. Additionally, increased metabolic activity in the brain, heart, and liver generates energy through oxidative metabolism of glucose, fat, and protein.

Peripheral vasoconstriction also helps by reducing blood flow to the skin, minimizing heat loss. Neonates lose heat through evaporation, as amniotic fluid dries from their skin; conduction, by contact with cold surfaces like clothes or weighing trays; convection, where air currents replace warm air with cold air from fans or open windows; and radiation, where heat transfers to nearby cold objects like walls.

Neonatal hypothermia presents with peripheral vasoconstriction, causing acrocyanosis, cool/pale extremities, and poor peripheral perfusion. CNS depression leads to lethargy, hypotonia, bradycardia, apnea, and poor feeding. Increased metabolism results in hypoglycemia, hypoxia, and metabolic acidosis, while elevated pulmonary artery pressure causes respiratory distress and tachypnea. Chronic signs include disseminated intravascular coagulation (DIC) and poor weight gain.

The WHO's "warm chain" prevents and manages neonatal hypothermia through 10 key steps: ensuring a warm delivery room, immediate drying, and skin-to-skin contact. Early breastfeeding provides warmth and energy, while bathing and weighing are postponed to reduce heat loss. Proper clothing, rooming-in, and warm transportation help maintain body temperature. Warm resuscitation is crucial for at-risk newborns, and training and awareness ensure caregivers follow best practices.



DR. RAMESHWARI ZALA,  
ASSISTANT PROFESSOR,  
MTIN, CHARUSAT

## REVOLUTIONIZING NURSING EDUCATION: SHAPING THE FUTURE OF HEALTHCARE



MS. JALPA PRAJAPATI,  
ASSISTANT PROFESSOR,  
MTIN, CHARUSAT

In today's rapidly evolving healthcare landscape, nursing education must continuously adapt to prepare professionals for complex clinical environments. Innovative teaching strategies are essential to enhance learning outcomes and equip nurses with the necessary skills. High-fidelity simulators allow students to practice clinical skills safely, while immersive technologies like Virtual Reality (VR) and Augmented Reality (AR) offer interactive, real-life scenarios without leaving the classroom. The Flipped Classroom Model shifts traditional lectures to preparatory work, allowing in-class time for discussions, case studies, and problem-solving. Additionally, team-based learning, peer teaching, and role-playing improve communication, collaboration, and critical thinking, ensuring nurses are well-prepared for real-world challenges.

Nursing is continuously reshaped by advancements in technology, education, and patient care. The integration of Artificial Intelligence (AI), robotics, and telehealth is transforming the profession. AI assists in diagnostics, predicts patient deterioration, and personalizes treatment plans.

Robotics reduce physical strain on nurses by automating medication dispensing and patient assistance, while telehealth expands access to care through virtual consultations and remote monitoring. Personalized and Precision Nursing is revolutionizing patient care, with nurses playing a vital role in tailoring treatments based on genetic profiles. AI-powered predictive analytics helps anticipate patient needs and improve decision-making, while big data optimizes resource allocation and enhances patient safety. Simulation-based learning using VR further strengthens clinical competencies, boosting student confidence before handling real patients. As healthcare becomes increasingly interconnected, global collaboration is crucial. Nurses must develop cross-cultural competencies, language proficiency, and international collaboration skills to address global health challenges, pandemics, and healthcare disparities.

The future of nursing is dynamic, driven by technology, innovation, and interdisciplinary teamwork. By embracing modern educational approaches and continuous learning, nurses will lead the transformation of healthcare, ensuring a more efficient, patient-centered, and sustainable system for the future.

# MTIN CONNECT



*Shaping the future of  
Nursing with Knowledge,  
Compassion, and Innovation.*