INIR NFOCUS Enriching the innerself

May 2025

MNR's IN-HOUSE MAGAZINE







A grand celebration marking the 50th Foundation Day of MNR Educational Trust and 86th birthday of Shri. M.N. Raju, Chairman, MNR Educational Trust & President of MNR University, alongside Shri. Ravi Varma Mantena, Vice-Chairman, MNR Educational Trust & Chancellor, MNR University and the Heads of various MNR Group of institutions - A proud moment honoring decades of visionary leadership and academic excellence

Rising Above Fear A Message to Students After the Pahalgam Attack

The recent tragic attack in Pahalgam, known for its breathtaking beauty and peaceful landscapes has once again shaken our collective conscience. As a nation, we mourn the lives lost and stand in solidarity with the families affected. But in moments like these, when darkness attempts to engulf hope, it is especially important for our youth, our students to rise, reflect and respond with courage, clarity and purpose.

To every student reading this: You are the torchbearers of India's future. Terrorism thrives on ignorance and hatred; education is its most potent enemy. Your classrooms are more than just places to learn math or history, they are sanctuaries where empathy, understanding and leadership are cultivated. Let this tragedy not harden your hearts, but strengthen your resolve.

You are the generation that can shape narratives, innovate solutions and advocate for peace. Speak out against violence, not just with slogans, but through your ideas, your art, your scienceand your actions. Channel your anger into ambition. Let your grief become a reason to work harder, study deeper and build a more just world.

The Pahalgam attack is a grim reminder that we cannot take peace for granted. But it is also a call to action. Stand up, not just in defiance of terrorism, but in support of harmony, tolerance and the India we all believe in.

Let us honor those lost by refusing to be silent. By choosing learning over hatred. By being brave in the face of fearnot with weapons, but with wisdom.

Because the strongest answer to violence... is a generation that refuses to be broken.

Editorial....

Postal Address:

INFOCUS,

MNR's In-House Magazine

MNR Research Conventions Pvt. Ltd.

2-23B/350, Bhagyanagar- Phase III, HMT Hills Colony, Opp. JNTU Kukatpally, Hyderabad - 500 085.

Ph: 040-23890835

Email: infocus@mnrindia.org

Facebook: www.facebook.com/infocusinhouse

INFOCUS MNR's In-House

Magazine

Publisher

&

Editor-in-Chief

Sri M.N. Raju

Editor

Dr. Kodaparthi Ashwitha

Illustrations and Designing

Nagarjuna Ambati

K Kishore Kumar

<u>Supervision</u>

P. Sharmila

Events @ MNR Higher Education and Research Academy (MNR-HERA) Campus, Sangareddy, Telangana.

ACTIVITIES @ MNR Dental College & Hospital

MNR Dental College celebrated UG & PG Graduation Day, honoring the achievements of graduating students with a memorable ceremony







FREEDOM FROM BOREDOM. Sri M N.Raju Chairman MNR Educational Trust

Generally, we hear many people saying "The lesson is bore, the cinema is bore, the work is bore, spending time alone is bore etc". When one gets bored, it produces fatigue, worry, resentment and one suffers from headache, backache etc. He would be completely exhausted due to boredom.

One girl went home, completely exhausted, after attending long hours of classroom lectures and a longer period of practicals in the laboratory, in a subject, she is not interested. She hadn't shown interest even in taking her food also. But suddenly her father brought a surprise to her saying that he brought a new car and it was outside.

Suddenly she jumped out of her seat, made a screaming and ran out to see the new car. Her eyes sparkled. Her spirits soared. Her fatigue, worry and resentment vanished and became vigorous. She was really exhausted but at this point of time she was vigorous. How? Why? Is fatigue an imagination. No.

When one is bored, the blood pressure of the body and the consumption of oxygen decrease and the individual feels fatigue. But when one feels pleasure and interested in the work, the metabolism of the whole body picks up and while worry is vanished, vigour is flourished. We rarely get tired when we are doing something interesting and exciting. We feel excited and exhilarated and have a sense of high achievement.

Now the lesson to be learnt is that our fatigue is often caused not by work, but by worry and frustration. If we enjoy our work mentally, there is joy spiritually also. Then we have more energy, more happiness, less worry and less fatigue.

Where your interests are, there your energy is. Whatever work you do, you create interest in it and you are sure to be happy, since your fatigue is mental creation, in most of the cases, and not your work load and time taken for it.

How to create interest in the work? what do you do? It is the question.

One boy not educated, was working in a school canteen. His work was washing plates, scrambling counters and tables and dishing out ice cream and other eatable. The boy was very active intelligent and hands on though not educated. He thought of leaving his work several times because it was boring and because of the nagging manager. When all the other boys and girls were playing ball, and kidding each other, he had to do the same work continuously for longer periods. But he was not in a position to leave his job due to his financial problem.

Suddenly, he decided to show interest in his work and started to do it with more happy mood. He resolved to study, how ice cream was made, what ingredients were used and why some ice-creams were better than the others. He studied the chemistry of ice cream. He became familiar with the chemistry of various kinds of ice creams.

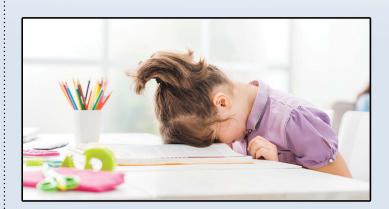
He was so interested in food chemistry, that he joined in a college, after getting qualified for admission in 'food technology' and successfully completed the course.

With the help of banks, be opened his own private laboratory to test various food items. He appointed two assistants and one of them, was the student of the school, to where he sold ice creams, when he was working as a dishwasher.

Now he is the most successful business person in South Africa. He and his daughter have been running three big five-star garden hostels.

The only one quality that pulled him out of boredom is his determination to make the work of dishwashing into an interesting job. That directed him to have thoughts of courage and happiness and thoughts of power and peace.













Dr. Syed Ali Gulab Jan
Professor, Dept. of Medical
Surgical Nursing
MNR College of Nursing

International Nurses Day is celebrated every year worldwide on 12th May, the birth anniversary of Florence Nightingale to commemorate her selfless service and significant contributions towards public health, hospital designing, social reforms towards improving health care, statistics and formalization of nursing education incorporating the science of nursing. In view of her contributions to society, health care and nursing, Florence Nightingale is acknowledged and revered as the pioneer of modern nursing.

In India, nurses constitute two-thirds of the health workforce. They play a crucial role in delivering quality and cost-effective healthcare and safeguarding public health. India has made significant progress in improving various health indicators and nurses have contributed significantly to these advancements. Their contributions have greatly influenced India's health targets, including reducing mortalities, increasing immunization coverage and the prevention and control of both non-communicable and communicable diseases.

The National Florence Nightingale Awards (NFNA) are given by the Government of India to commemorate the birthday anniversary Nightingale.The of Florence National Health Policy (NHP, 2017) recommends standardization of quality nursingEducation, clinical training and continuing nursing education. It also emphasizes strengthening human resource governance, regulating practice and establishing cadres such as nurse practitioners and public health nurses, providing specialty training for tertiary care and advancing career progression within the nursing cadre.

Recommendations from the State of World's Nursing 2020 report (SoWN), State of World's Midwifery 2021 report (SoWMy), and the Global Strategic Direction for Nursing and Midwifery (GSDNM) 2021-25 by WHO, reiterate the importance of investing in jobs, education, leadership and service delivery in nursing. The Government of India is making all efforts for reforms in Nursing Sector, the constitution of the National Nursing and Midwifery Commission is under way, which

will pave way for better Regulation and high standard nursing education.

Indian Nursing Council has taken various steps to improve quality of nursing education and strengthen nursing competencies like MoU with Quality Council of India for the Assessment and Rating of Undergraduate Colleges under INC, redesigning competency-based B.Sc. Nursing curriculum in line with international standards, creation of Indian nurses live register, formulating continuing nursing education guidelines, MoU for dual degree with University of Brunswick, Canada, MoU with National Skill Development,

inclusion of foreign languages in nursing programs, increasing number of seats of nursing programs, residency based nursing specialties to meet the growing needs of advanced practice nursing roles etc.

MNR college of nursing is educating the nurses since 2002 in various level of nursing programs, our nurses were working as nurses, managers, educators and administrators, researchers in national and global health work force. MNR educational trust take pride in congratulating all nurses and extend best wishes to all nursing professionals as they continue to impact healthcare outcomes with their compassion and competence.

Happy Murses Day!

Nurses are heroes. Compassion is their superpower.





Artificial Intelligence (AI) transforms nutrition science through innovative applications, from personalizing diets to enhancing food industry At the forefront is personalized practices. nutrition AI, which analyses extensive datasets to generate tailored dietary recommendations based on individual health profiles, lifestyles, and genetic factors. This technology streamlines food labelling and quality control while enabling realtime dietary assessments that help individuals track their calorie intake, vital ranges, micro and macronutrient analysis habits, and identify nutritional gaps. These technologies can increase precision and efficiency, minimise waste, and maintain safety standards in the food industry with reduced corrections and improved results. For public health, predictive models identify nutritional trends and target interventions for atrisk populations. Mobile apps now leverage Al to accurately track diets, providing personalized feedback that encourages healthier habits and supports long-term wellness goals.

Al in Personalized Nutrition and Diet

Al-powered tailored meal recommendations have revolutionised Dietetics and nutrition. Due to Al capabilities, individuals can now access specialist and accurate counsel on analysing extensive dietary data and nutritional information databases to produce highly customised meal suggestions, which may significantly affect their overall well-being and health. These suggestions Al considers each person's specific needs,

including dietary restrictions, allergies, and intolerances, to ensure that the recommended foods are safe and appropriate. Personalised food recommendations are more than just generic nutritional and dietary guidelines. For instance, the AI can recommend foods like fatty fish or oats that have been demonstrated to decrease cholesterol; this customization ensures that the recommendations are appropriately suited to the person's goals. These tools analyse the data given as input and provide the changes needed to be made in our lifestyle.

Al in Nutrient Optimization

The first step in nutritional optimisation is identifying foods high in vital vitamins, minerals, and nutrients, and AI does it with ease. As a result, people may easily identify and include nutrientrich items in their meals. Al can help people make informed food choices by specifying, for example, leafy greens, nuts, and lean meats as the best suppliers of specific nutrients. Another crucial component of nutritional optimisation is micronutrient balance. Wellness companies such as Healthifyme use cutting-edge technologies combined with AI to analyse an individual's diet and highlight any imbalances in calories, proteins, fats, vitamins, and minerals. Al might suggest particular meals or supplements to compensate for a person's diet's reduced amount of HDLs in case of cardiovascular diseases. A good macro and micro nutrient balance must be achieved for general health and well-being.

Al in recipe recommendation (Swipe, Select, Savor)

Recipe suggestion systems are intended to assist consumers in discovering meals that fit their preferences, dietary requirements, and culinary skills by employing innovative approaches such as collaborative filtering, content-based filtering, or a combination of recommended recipes personalized to each user. Collaborative filtering examines user behaviour and trends to offer recipes others with similar interests have loved. In contrast, content-based filtering looks at recipes' ingredients, cooking techniques, and nutritional profiles to see if they meet a user's preferences and limits. Many current systems take a hybrid approach, combining the two methodologies to provide more accurate and personalised recommendations. To make recommendations even more relevant, some algorithms use contextual information such as time of day, season, or special events to discover the ideal food for the user.

Al Meets Nutrigenomics

Artificial Intelligence (AI) and nutrigenomics are coming together to change how we eat, for good. By analysing your genes, AI can help build nutrition plans tailored to your body's unique needs, making diet more personal, precise, and proactive than ever before. Using machine learning, AI sifts through massive genetic datasets to find patterns, like how you metabolize specific nutrients or whether you're more sensitive to sugar, salt, or fat. Thereby providing personalised guidelines for a better and healthier lifestyle.

According to the research conducted using our genetic sequence codes to guide daily food choices, from what kind of fats are best for our heart to how much vitamin D our body needs, nutrigenomics also laid the foundation for gene modifications on habitual lifestyle changes. Al is also reshaping the food industry. With genetic insights, companies can now design targeted supplements and functional foods that cater to specific biological needs, taking personalization to a whole new level. Research indicates that the FTO gene with AA genotype influences obesity, which can be mitigated by high protein or Mediterranean diets. In bearers of the TCF7L2 variation, a high-fiber diet decreased the genetic risk, according to research published in Diabetes Care. Even in individuals with GST genes absent (GSTM1 null and GSTT1 null genotypes), increased consumption of cruciferous vegetables (broccoli, cabbage) increases detoxifying enzymes. Individuals with APOE ε4 have demonstrated neuroprotective effects from diets high in omega-3 fatty acids, particularly DHA from fish oil, suggesting nutrient-gene interactions that polyunsaturated fats (PUFAs) may help lower the risk of cognitive decline in the APOE ε2, ε3, and ε4 variants which are linked to an increased risk of Alzheimer's and cardiovascular disease.

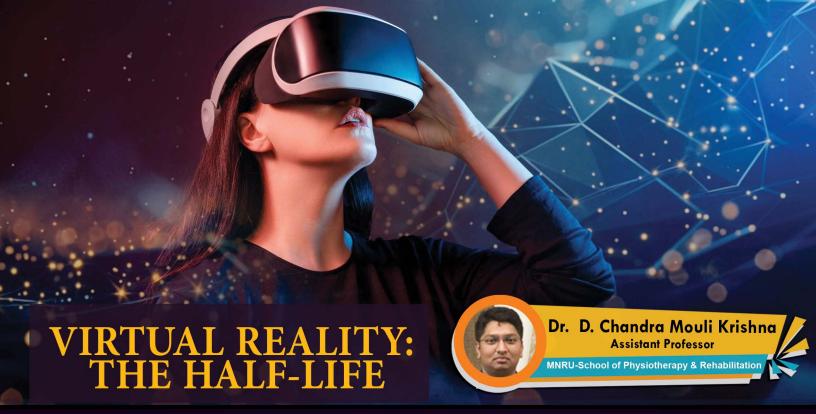
Still, this exciting shift raises essential questions: How do we protect sensitive genetic data? How do we ensure algorithms are fair and inclusive? As the tech evolves, so must the ethics. In short, Al and nutrigenomics are turning food into personalized medicine one meal at a time.

Al and dietary mobile applications

Al-powered diet applications transform our eating by making healthy choices easier, smarter, and more personalised. With simple meal logging either by typing in meals or taking a photo, these apps break down your consumption into calories and nutrients, allowing you to understand your diet in real time better. They also provide recipe ideas based on your health goals, tastes, and dietary requirements, with some even preparing weekly meal plans and shopping lists. Beyond food, several applications provide community elements allowing users to share progress, join groups, and remain inspired. These applications, which integrate technology into everyday living, make nutrition more accessible, allowing people to take control of their health one meal at a time.

Conclusion

The Al-driven technology has reached the roots of our culture in all aspects, making work smarter and easier. These tools help tailor meal plans to individual needs, whether managing diabetes, losing weight, or making healthier choices. These tools act as a digital nutritionist but without emotional connectivity. However, challenges remain, such as data privacy, digital access, and cultural sensitivity, which are key concerns. Al must learn to respect regional diets, homecooked habits, and the emotional value of food.



Life-changing possibilities in the field of rehabilitation have recently been made accessible by current advancements in virtual reality technology. VR is being utilized significantly in the geriatric and pediatric departments and is being included more and more into physical therapy and rehabilitation programs. It offers patients new ways to heal from Neurological, Musculoskeletal and Cardiopulmonary conditions.

Definition

The "use of interactive simulations formed with computer hardware and software to present users with opportunities to engage in environments that appear and feel similar to real-world objects and events" is the definition of virtual reality. With the use of virtual reality, it is possible to create virtual worlds where users may interact and explore them in real time, creating a sense of reality through immersion and engagement. These virtual worlds' material might be produced with particular goals in mind, like teaching or gaming. Nowadays, telerehabilitation and clinics make extensive use of the virtual reality approach.

VR Development in Rehab Is Divided Into 4 Periods

Period 1 (1996-2005): Virtual reality (VR) was first employed in rehabilitation in a groundbreaking way that included kinematic analysis, pain treatment, stroke patients, and motor problems. Because of their high cost, technical complexity, and restricted access to hardware and software,

their clinical significance remained uncertain despite the advantages.

Period 2 (2006–2014): The development of clinically accessible applications, which resulted in improved technology at reducedcosts, was a defining feature of Period 2.

Period 3 (2015–2018): With the growing availability of embedded technology like cameras, sensors, haptics, and wearables, which enable the monitoring of motor and cognitive processes in real-world settings, thisperiod represents a substantial advancement in clinical research in VR rehab.

Period 4 (2019–present): Patients required an alternative to in-person sessions, so the COVID-19 epidemic speed up the introduction of virtual reality (VR) into home-based and remote therapy.

VR remote rehabilitation became extremely useful during the pandemic. Systems that tracked motion allowed clinicians to monitor patients' progress remotely while they completed guided exercises in virtual environments. In order to ensure continuity of treatment in circumstances involving injured patients, surgical recoveries, and neurological diseases, such a remote application was developed in response to the difficulties posed by lockdowns and social isolation. More haptic feedback has been developed since the epidemic, allowing patients to "feel" resistance in virtual environments and improve their motor skill

recovery. Even, further incorporation of Al has enabled more individualized and adaptive therapy programs. These technologies became viable for home-based rehabilitation as more affordable VR headsets became available.

Hypotheses to Explain How VR Analgesia Works

There is growing evidence to support the use of virtual reality in healthcare. Treatment of mental health disorders, upper limb rehabilitation following a stroke, and burn injury management are a few examples. Although additional study is required to inform therapeutic practice, immersive VR therapies may also be useful in managing and rehabilitating musculoskeletal conditions.

- 1. Gate Control Theory demonstrating that attention to pain modifies suffering, and distractions could reduce suffering related to pain.
- 2. Multiple resources and Mental workload which refers to the various cognitive and perceptual processes that need to be used to perform a task. This theory supports the use of VR technology as a method of pain relief, which is based on integrating multimodal (visual, auditory, tactile, and olfactory) sensory distractions.
- 3. Neurobiology of Virtual Reality Pain Attenuation This theory hypothesized that VR associated analgesia arises from intercortical modulation among signaling pathways of the pain through memory, attention auditory, touch, visual emotion. Additionally, it suggested that an increase in activity in the brain's anterior cingulate cortex and orbitofrontal areas (pain processing centers) may coincide with a decrease in activity in the pain matrix (such as the thalamus, insular cortex, and midcingulate ACC).
- 4. Behavioral health According to this theory they speculated that VR works like the functioning of the brain by creating an embodied simulation of the body in the world to represent and predict actions, concepts, and emotions.
- 5. Neuroplasticity The brain's capacity to adapt by creating new neural connections is known as neuroplasticity. It plays a significant role in the recovery of cognitive and motor abilities following a stroke. The richer environment of VRBR either builds new pathways or reinforces existing ones, activating parts of the brain involved in planning, physical activity management, and sensory input. Following a stroke, these ultimately lead to the

restoration of certain lost talents.

6. Motor Re-learning - VR-based rehabilitation (VRBR) employs motor learning concepts to help patients regain their motor function. The patient receives immediate feedback regarding mobility through repetitive, task-oriented workouts in the virtual reality environment. These motions allow the brain to train in a way that will improve the motor pathways and repair mistakes. Virtual reality's immersive experience keeps patients interested and enables constant practice, which is crucial for brain rewiri

Types of VR

- 1. Non-immersive VR: Permits the user to see and interact with a screen-based computer-generated representation of themselves. The user is not fully submerged in a virtual environment; they may see and experience the actual world outside of the screen.
- 2. Semi-immersive VR: To increase the sense of immersion, a more sophisticated visual display such as curved or panoramic screens—is employed. The user may view the outside world on all sides of the screen, just like with non-immersive technology.
- 3. Immersion VR: The use of a head-mounted display unit provides the user with a multisensory experience. Multidirectional treadmills, vibrotactile platforms, wands, and gesture-sensing gloves are examples of additional equipment. The user can explore and engage with the virtual world as an avatar, which is a virtual character that represents the user in the virtual world, thanks to all of this. Embodiment occurs when a user is fully submerged in virtual reality and interprets the actions of the avatar as if they were their own body parts. The VR user has to feel location. agency (doing an action or intervention that has an effect), and body ownership (thinking they are the avatar) in order to maximize the body ownership.

In summary, virtual reality has revolutionized rehabilitation by providing immersive, engaging, and personalized therapy options for diverse patient needs. Its evolution from basic simulations to Al-integrated home-based systems marks a significant leap in medical innovation. As research advances, VR continues to redefine recovery, offering hope and improved outcomes across physical and cognitive health domains.

Graduation Day Ceremony of MNR PG college, Kukatpally on 12th April, 2025 graced by Shri. Prof. Sriram Venkatest, Secretary, TGCHE as the Chief Guest and Shri. M.N. Raju, Chairman & President of MNR University, and Shri. Ravi Varma Mantena, Vice-Chairman, MNR Educational Trust & Chancellor, MNR University as the Guests of Honor.











MNR Infocus-9

Activities @ MNR Golden Kids (Navi Mumbai)

Summer Day Activity
@ MNR Golden Kids G01, Mumbai



Earth Day and Summer Day Activity

@ MNR Golden Kids G12, Mumbai



Earth Day and Summer Day Activity @ MNR Golden Kids G27, Mumbai



Summer Day Activity

MNR Golden Kids G30, Mumbai



SCHOOLS EXAMINATION RESULTS 2024-2025

STATE BOARD X TOPPERS 2024-25, CHINTAL



STATE BOARD X TOPPERS 2024-25, MEHDIPATNAM



STATE BOARD X TOPPERS 2024-25, BHEL



CBSE X TOPPERS 2024-25, BHEL



SCHOOLS EXAMINATION RESULTS 2024-2025

CBSE X TOPPERS 2024-25, KUKATPALLY



CBSE X TOPPERS 2024-25, SANGAREDDY



CBSE X TOPPERS 2024-25, KAMOTHE



CBSE X TOPPERS 2024-25, PALASPE



Events @ MNR Higher Education and Research Academy (MNR-HERA) Campus, Sangareddy, Telangana.

ACTIVITIES @ MNR Dental College & Hospital

The Department of Prosthodontics, MNR Dental College & Hospital, organized a workshop on veneers focusing on the latest techniques and advancements in aesthetic dentistry



MNR Dental College & Hospital conducted an Oral Cancer Awareness Run to promote awareness and early detection of oral cancer among the public.





MNR Infocus-13

Events @ MNR Higher Education and Research Academy (MNR-HERA) Campus, Sangareddy, Telangana.

ACTIVITIES @ MNR COLLEGE OF PHARMACY

MNR College of Pharmacy conducted a One Day National Conference on "Advances in Drug Discovery, Development & Patents – Challenges & Opportunities," bringing together experts to discuss current trends and future prospects in pharmaceutical research











MNR GROUP OF SCHOOLS

Telangana | Maharashtra

A perfect academic environment that INSPIRES your child

- **DIGITAL CLASSROOMS** and TECHNOLOGY for enhanced Quality of Education
- Innovative and experimental approach
- Student-centered teaching 8
- Competent and dedicated faculty 8
- Well-connected transport system **S**
- 50 years of MNR legacy in Education **S**





CBSE: 3630238 | Opp: JNTU Kukatpally, Hyd Contact: 98499 88254



MNR SCHOOL OF EXCELLENCE CBSE: 3630138 | Chandanagar, (BHEL) Hyderabad. Contact: 99630 66266







MNR SCHOOL OF EXCELLENCE State Board | Gudimalkapur, Mehdipatnam, Hyd. Contact: 91003 45550



State Board | Chandanagar, (BHEL) Hyderabad. Contact: 98499 84831









MNR SCHOOL OF EXCELLENCE CBSE: 1130230 | Sector 6, Kamothe, Navi Mumbai Contact: 84518 00701

Enriching Lives Turough Education & Health....