PROCEEDING BOOK

1st International Conference on Multidisciplinary Approaches in Medical and Health Sciences (MMH-23)

Singapore

Volume 01
Issue 01

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1st International Conference on Multidisciplinary Approaches in Medical and Health Sciences
MMH-2023

City/Country: Singapore
Date: November 04-05, 2023
Venue: Hotel Grand Pacific Singapore

Email: contact@iarconference.com
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Proceedings of the 1st International Conference on Multidisciplinary Approaches in Medical and Health Sciences
(MMH-23)

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- Promoting the individual rights to learning, growth, opportunity and privacy
- Compliance with higher standards of research ethics
- Nurturing and sponsoring positivity in all areas of conduct
- Transparency and trust in all means of conduct
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- Business, Management and Economics Studies
- Health and Medicine Studies
- Multidisciplinary and Interdisciplinary Studies
- Engineering & Technology Studies
- Social Science & Humanities
- Physical Life and Applied Sciences
- Regional and Religious Studies
- Mathematics and Statistics
CONFERENCE CHAIR MESSAGE

Dr. Sennay Ghebreab

“INTERNATIONAL ACADEMIC RESEARCH CONFERENCE” is a platform that thrives to support the worldwide scholarly community to analyze the role played by the multidisciplinary innovations for the betterment of human societies. It also encourages academicians, practitioners, scientists, and scholars from various disciplines to come together and share their ideas about how they can make all the disciplines interact in an innovative way and to sort out the way to minimize the effect of challenges faced by the society. All the research work presented in this conference is truly exceptional, promising, and effective. These researches are designed to target the challenges that are faced by various sub-domains of the Society for Business, Economics, Social Science & Humanities, Society for Engineering & Technology, Computer, Basic & Applied Sciences, Medical, Medicine & Health Sciences.

I would like to thank our honorable scientific and review committee for giving their precious time to the review process covering the papers presented in this conference. I am also highly obliged to the participants for being a part of our efforts to promote knowledge sharing and learning. We as scholars make an integral part of the leading educated class of the society that is responsible for benefitting the society with their knowledge. Let’s get over all sorts of discrimination and take a look at the wider picture. Let’s work together for the welfare of humanity for making the world a harmonious place to live and making it flourish in every aspect. Stay blessed.

Thank you.

Dr. Sennay Ghebreab
Conference Secretariat
CONFERENCE SCHEDULE

Hotel Grand Pacific Singapore
101 Victoria Street, Singapore 188018

Day: Saturday
Date: November 04, 2023

Time: Registration & Kit Distribution (10:00 – 10:30 am)

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<td>10:30 am – 10:45 am</td>
<td>Introduction of Participants</td>
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<td>10:45 am – 11:00 am</td>
<td>Inauguration and Opening address</td>
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<td>11:00 am – 11:15 am</td>
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Break (11:15 - 11:30 am)

DAY 01 (November 04, 2023)

First Presentation Session (11:30 am – 12:30 pm)

Track A: Business, Economics, Social Sciences and Humanities

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<td>Relationship between Ideal Body Image and Fatigue or Stress of University Students in Japan and Thailand</td>
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<td>Real-Time 3D Human Pose Estimation Using Deep Learning Model for Ergonomics</td>
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<td>Yoonhee Shin</td>
<td>An Evaluation of the Effects of Virtual Reality Simulation-Based Clinical Procedure Skills Training for Nursing College Students</td>
<td>MMH-2023-P105</td>
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Closing Note & Lunch (12:30 - 01:30 pm)
Conference Day 02 (November 05, 2023)

Second day of conference will be specified for touristry. Relevant expenses are borne by individual him/herself.
RELATIONSHIP BETWEEN IDEAL BODY IMAGE AND FATIGUE OR STRESS OF UNIVERSITY STUDENTS IN JAPAN AND THAILAND

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In Japan, the proportion of "thin" individuals with a BMI of less than 18.5 kg/m2 is high among those aged 20-29, and health problems due to misperception of the ideal body image have become a problem. In Thailand, the proportion of "obese" people with a BMI of 25.0 kg/m2 or higher is increasing significantly, and there is concern that lifestyle-related diseases will increase. Therefore, it is important to maintain an appropriate body weight, and in particular, it is necessary for individuals to be aware of their goals and to be mentally motivated. In this study, we examined the relationship between students' ideal body shape, mental health, and physical health, such as fatigue and stress, in Japan and Thailand. The results revealed that the percentage of students with a "desire to be thin" was high among Japanese females. In addition, there was no significant difference between body shape and fatigue or stress, but there was a significant difference between sleep satisfaction and mental health status. This suggests that positive factors maintain good physical health, increase sleep satisfaction, and reduce fatigue and stress. In order to maintain ideal body shape and good mental health, it is necessary to educate people about health awareness from their youth.

Keywords: Fatigue, Stress, Ideal Body
REAL-TIME 3D HUMAN POSE ESTIMATION USING DEEP LEARNING MODEL FOR ERGONOMICS

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In the recent days, most of the people stay in a hunchback position for a long time, due to usage of electronic gadgets like smartphones, personal computers, laptops and tablets, which causes neck and back pain in large numbers, which causes Text neck syndrome, Musculoskeletal disorders, Carpal Tunnel Syndrome and Computer Vision Syndrome. Hence it has become mandatory for people to be mindful of their posture while sitting for long hours. Human pose estimation has gained a lot of attention amongst researchers in a wide range of applications including computer vision, video analytics and motion analysis. To address these risk factors, attempts have been made to develop a 3D Human Pose Estimation (3D-HPE) model for detecting and correcting frontal plane (anterior) sitting postures in computer workstation ergonomics using Mediapipe, and various variants of YOLO, algorithms. The proposed model locates landmarks and analyzes kinematic points from the input video captured through a web camera. From these kinematic points, the 3D-HPE model analyzes whether the human postures are good or bad based on the temporal duration of prolonged time of poor posture. YOLOv8 gives the highest accuracy which is determined by mAP (Mean Average Precision) value found 91.2 in terms of computational time and human pose estimation. Hence, YOLOv8x-pose is the most suited deep learning algorithm for Real-time 3D Human Pose Estimation in Ergonomics. The proposed model notifies the human by sending an alert message to the device for posture correction.

Keywords: Deep Learning, Ergonomics, Human Pose Estimation, Musculoskeletal disorders, Text neck Syndrome
Core nursing skills are emphasized in nursing education, recognizing their vital role in nurses’ competence, however, invasive nursing procedures like catheterization and enema are infrequently performed in actual clinical practice, primarily being observed rather than executed. Study participants included 76 second-year nursing students participated with 37 students in the VR group and 39 in the control group. The VR group engaged in immersive VR training sessions including enema, nasogastric feeding, and nelaton catheterization. Conversely, the control group practiced these skills using mannequins. Assessments evaluated confidence, proficiency, learning satisfaction, and task engagement before and after the intervention.

The study findings revealed no significant differences between the VR and control groups regarding confidence, task engagement, and learning satisfaction. However, the VR group demonstrated significantly higher proficiency in the overall assessment of nasogastric feeding and core components of nelaton catheterization and nasogastric feeding. The immersive VR program emerged as an effective and valuable teaching tool, particularly well-suited for second-year nursing students, significantly enhancing proficiency.

Keywords: Virtual Reality, Nursing Students, Clinical Competence, Satisfaction, Confidence
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