

2021



Humanizing Work and Work Environment

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Online Mode, Links will be Shared

Schedule

9:00-9:40 Inaugural Session	9:40-12:00 Inaugural addresses Session 1 (Hall 1)	12:00-13:00 Lunch break	13:00-15:00 Parallel Sessions	15:00-15:30 Tea break	15:30-17:30 Parallel Sessions
			2A (hall 1)		3A (hall 1)
			2B (hall 2)		3B (hall 2)
			2C (hall 3)		3C (hall 3)
			2D (hall 4)		3D (hall 4)
			2E (hall 5)		3E (hall 5)
			2F (hall 6)		3F (hall 6)
9:00-12:00 Plenary Session 1A, Hall 1		12:00-13:00 Lunch break	13:00-15:00 Parallel Sessions	15:00-15:30 Tea break	15:30-17:30 Parallel Sessions
			2A (hall 1)		3A (hall 1)
			2B (hall 2)		3B (hall 2)
			2C (hall 3)		3C (hall 3)
			2D (hall 4)		3D (hall 4)
			2E (hall 5)		3E (hall 5)
			2F (hall 6)		3F (hall 6)
9:00-12:00 Plenary Session 1B, Hall 2		12:00-13:00 Lunch break	13:00-15:00 Parallel Sessions	15:00-15:30 Tea break	15:30-17:30 Parallel Sessions
			2A (hall 1)		3A (hall 1)
			2B (hall 2)		3B (hall 2)
			2C (hall 3)		3C (hall 3)
			2D (hall 4)		3D (hall 4)
			2E (hall 5)		3E (hall 5)
			2F (hall 6)		3F (hall 6)
9:00-10:00 Plenary Session 1A, Hall 1	10:00-12:00 Parallel Sessions	12:00-13:00 Lunch break	13:00-15:00 Parallel Sessions	Valediction (Starting at 15:00 hrs.)	
	2A (hall 1)		3A (hall 1)		
	2B (hall 2)		3B (hall 2)		
	2C (hall 3)		3C (hall 3)		
9:00-10:00 Plenary Session 1B, Hall 2	2D (hall 4)				
	2E (hall 5)				
	2F (hall 6)				

Day 1 (December 1, 2021)

Inauguration (09:00-9:40)

December 1, 2021, Session 1, Hall 1

Session	Schedule	Author(s)/Speaker(s)
Session Chair Prof. Debkumar Chakrabarti Co-Chair Prof. Prakash Dhara	9.40-10.00	Jose Orlando Gomes
	10.00-10.20	Yushi Fujita
	10.20-10.40	A.K. Ganguli
	10:40-11.00	P.K. Nag
	11:00-11.20	Amitabh De
	11:20-11.40	Amaresh Chakrabarti
	11:40-12.00	Amit Ray
	12.00-12.20	Kathleen Mosier

HWWE2021 Inaugural Addresses

Lunch Break (12:00-13:00)

December 1, 2021, Parallel Session 2A (13:00-15:00) (Hall 1)

Session / Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead lecturer and Session Chair Prof. Mohammad Muzammil	13:00	LL-1	Work and Fatigue	Assessment of Postural Discomfort in Present and Modified Drilling Methods	Mohammad Muzammil
	13:20	P-42		BRAKING: The Most Strenuous Task of Locomotive Driving	Subir Danda, Soumya Sarkar, Bikash Bepari, Kalyanbrata Saha, Balendra Nath Lahiri
	13:40	P-46		Study of the effect of worker characteristics on maximum acceptable weight of Lift.	Saman Ahmad, Mohammad Muzammil
	14:00	P-72		Modifying the Revised NIOSH Lifting Equation in the Presence of Noise	Nadeem Ahmad, Mohammad Muzammil, Saman Ahmac
	14:20	P-76		Working Posture Evaluation of Bus Drivers - using CMDQ and RULA Technique	Soumyajit Das, Sujit Patra, Subir Danda, Bivash Mallick, Avishek Pandey
	14:40	P-172		Analysis and improvement of working postures in cargo securing process during outbound shipment by using different Ergonomics tools and software	Rahul Bhosale, M Sunil Kumar

December 1, 2021, Parallel Session 2B (13:00-15:00) (Hall 2)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead lecturer and Session Chair Prof. Nandita Bhattacharya	13:00	LL-2	Musculoskeletal Disorder	Design elements in educational toys: in usability perspective	Nandita Bhattacharya
	13:20	P-206		A questionnaire analysis for customizing bicycle design based on musculoskeletal disorder discomfort level	Celestin Jerald A, Sasvat Sayee Ram R, Rithani A.S, Kanagasabai Adalarasu
	13:40	P-220		“Incidences of MSDs Prevalent Among the Indigenous Women Involved in Petty Trading in Assam”	Bijoylaxmi Bhuyan, Nandita Bhattacharya
	14:00	P-286		Assessment of Construction Workers’ Musculoskeletal Disorders Risk using Quick Exposure Check tool	Abhishek Trivedi, Parth Patel, Shailesh Pratap Singh, D A Patel
	14:20	E-36		An ergonomic design of wheel chair for paraplegic person	Niaz A. Salam and S.A. Binoosh
	14:40	P-219		Musculoskeletal Pain experienced by the Marble Cutting workers in Marble Industries at Kishangarh District, Rajasthan	Vashima Veerkumar, Neerja Jaiswal

December 1, 2021, Parallel Session 2C (13:00-15:00) (Hall 3)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead lecturer and Session Chair Dr. L. P Singh	13:00	LL-3	Product and Productivity	Respiratory Symptoms in Brick Kiln Workers: A pre – COVID 19 Study in Indian Unorganized Sector	L. P. Singh
	13:20	P-106		Potential benefits of corporate social responsibility (CSR) in the construction industry	Vigneshkumar Chellappa, Grzegorz Ginda, Urmi Salve
	13:40	P-145		Effects of built environment attributes on work place psychology & productivity	Nivia Jain
	14:00	P-146		Design and Development of Hand Tools for Metal Handicraft in Context of Adoption	Kiran Kumari Mahato, Pratul Chandra Kalita
	14:20	P-147		A Smart Compact Kitchen layout to optimize space utilization	T. Prithvi Kiran, Avantika Verma, Sonal Atreya
	14:40	P-321		Analysis of transplanting activity using Surface electromyography	Parimalam Paramasivam, Padmanabhan, Kaliappan, Nallakurumban Balu, Logeswari Hariharan, Abinaya S

December 1, 2021, Parallel Session 2D (13:00-15:00) (Hall 4)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Dr. Keyur Sorathia	13:00	P-25	Design Application	Virtual Reality reducing cognitive load in Travel Planning	Aanchal Krishna, Tushar Amin, Tanmayee Puntambekar
	13:20	P-115		Analysis of Body-Gestures Elucidated through Elicitation Study for Natural Locomotion in Virtual Reality	Priya Ganapathi, Keyur Sorathia
	13:40	P-45		Sound design in cinematic virtual reality: A State-of-the-art review	Hitesh Chaurasia, Manoj Majhi
	14:00	P-313		A user-centered comparison of novelty and typicality in product designs using pictorial and augmented reality (AR) representation	Rambardhan K, Dhananjay Singh Bisht
	14:20	P-12		An Empirical Study on Cognitive Impairment of Knowledge in Children through Augmented Reality	Sandipan Bhattacharjee, Bhaskar Saha
	14:40	P-189		Learning Indian Classical Dance Forms with the Help of Augmented Reality (AR) Applicator	Sudakshina Choudhury, Anirban Chowdhury

December 1, 2021, Parallel Session 2E (13:00-15:00) (Hall 5)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Prabir Mukhopadhyay and Dr. Debayan Dhar	13:00	LL-4	Design Application and Communication	Ergonomic Issues in the school environment for enhanced productivity	Prabir Mukhopadhyay
	13:20	P-155		Photography is a Tool of Social Awareness	Bappa Das, Debkumar Chakrabarti
	13:40	P-144		Ergonomic study in information system design of two major railway platforms of India	Jigyasa Patankar, Suyash Krishna, Sangeeta Pandit, Rajat Kamble
	14:00	P-279		Game Addiction and Game Design: A Study based Candy Crush Saga players	Navyashree s, Shivangi Vashisth, Wricha Mishra
	14:20	P-273		Enabling Sign Language Recognition Feature in Video Conferencing	Shuruthi V, Keerthana K, Sudha M, Ibrahim Badhusha U, Vijayalakshmi M, Vignaraj Ananth V
	14:40	P-311		The effects of training with two smartphone games based on Stroop	Shivam Kumar Singh, Dhananjay Singh Bisht
	15:00	E-34		Making the Furniture's Design Inclusive for Obese in HEIs: A Study in Bengalee Females	Sweety Bardhan, Sayantika Saha, Ayana Das, Santanu De, Neepa Banerjee and Shankarashis Mukherjee
December 1, 2021, Parallel Session 2F (13:00-15:00) (Hall 6)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Parag Vyas	13:00	LL-15	Ergonomic Tools and Techniques	Standard Indian Jewellery Workbench - Applied Ergonomics in the Domain	Parag Vyas
	13:20	P-195		Development of scale for assessing occupational health hazards in post harvest activities (OHHPA scale)	Mira Kalita, Ruplekha Borah, Nandita Bhattacharyya
	13:40	P-262		Fourth Ventricle Compression (CV4) as a Method for Stress Management	Praghosh Chhetri, Tirthankar Ghosh
	14:00	E07		Muscle Activity and Postural Analysis while Using Smartphone	D. Bhanu Priya, Murali Subramaniyam
	14:20	E08		Ergonomic Evaluation of Students Posture on Lathe Machine used in Lab by RULA method	Sudharshan N, Shreyas M, Vinay K B, K S Ravi
	14:40	P-91		Postural Assessment of Indian Floor Tilers' using OWAS, REBA, ERIN and WERA Methods	Manoj gajbhiye, Debamalya Banerjee, Saurav Nandi
	15:00	P-178		Quantification of Neurosignals for Mathematical Model Development of Muscle Fatigue from Inexperienced work	Rohit Kumar, Rajesh kumar, Parveen Kalra, Ankit Kumar
Tea Break (15:00-15:30)					
December 1, 2021, Parallel Session 3A (15:30 - 17:30) (Hall 1)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Prof. G. Madhan Mohan and Dr. Abhishek Srivastava	15:30	L-13	Environmental Stressors and Ergonomics	Ergonomic Framework to Mitigate Physical Risks in Manufacturing Industry	G Madhan Mohan and P Ashok
	15:50	P-32		Digitized Visual Fatigue Detection for Humanizing Digital Work Environments	Prerita Kalra and Vinod Karar
	16:10	P-88		Thermal Performance of Green Roof and Conventional Roof in the warm humid climate of India	Rebecca Varghese, Amalan Kaushik
	16:30	P-221		Evaluating Indoor and Outdoor Thermal Comfort Parameters Affecting Work Environment of Railway Pantry Ca	Md Sarfaraz Alam, Urmi Ravindra Salve
	16:50	P-310		An assessment of seasonal variations on dust exposure for Mine operators of Central India	Nikhil Kulkarni, Harish Bawarear, Krunal Lingayat
	17:10	P-57		Role of Design Control Interventions in Ameliorating Hot Stressful Thermal Work Ambience: A Review	Milap Sharma, N.M. Suri, Suman Kant
December 1, 2021, Parallel Session 3B (15:30 - 17:30) (Hall 2)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Prof. A. K. Das	15:30	P-188	Product and Productivity	Optimal Design of Customized Ankle Foot Orthosis for Drop Foot Patients	Rohit Kumar, Rajesh kumar, Parveen Kalra, Rajesh Madan
	15:50	P-164		Design, Development and Performance Evaluation of Foot operated Elephant apple Core cutter	Deepanka Saikia, Prakash Kumar Nayak, Kesavan Radhakrishnan, Javed Akhtar Barbhuiya, Sandip Mandal
	16:10	P-174		Multipurpose, Low cost, electricity-free cold storage cum vending cart for vegetable and fruit vendors	Abhishek Singh, Pratul Chandra Kalita, Gurdeep Singh, Raksha Singh
	16:30	P-240		User and market research with proposed concepts for ceiling-fan dust cleaning	Marilyn Supriya Albert, Sudarshan Katti, Arunachalam Muthiah
	16:50	P-301		Impact of select design characteristics in food packaging on consumer behavior: A study on Elderly population in Kolkata	Dr Neepa Banerjee, Dr Sandipan Chatterjee, Dr S Mukherjee
	17:10	P-148		An improved User Interface for enabling Smart access using Low-cost QR based systems	Shaivi Kant, Dr. Sai Prasad Ojha

December 1, 2021, Parallel Session 3C (15:30 - 17:30) (Hall 3)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Prof. C. K. Pradhan	15:30	P-149	Recent Trends and Research in Ergonomics	Eye tracking to evaluate the Usability of User Interfaces	Moonty Baruah, Nandita Bhattacharyya, Sougata Karmakar, Bighna Nayak
	15:50	P-222		Musculoskeletal Discomfort faced by Interior Design Students during Online Learning	Himani Shah
	16:10	P-238		Impact of work-related factors on musculoskeletal discomfort among the rural housewives in central India	Jaita Mondal, Tirthankar Ghosh
	16:30	P-271		Discomfort experienced by students while attending online classes during the pandemic period	Edison Gundabattini, darius solomon, Preethi S H Darius
	16:50	P-41		Rotating Cylindrical PIN VR Display - An ergonomic approach for VR scripts	Delwyn Remedios, Deepak Mathew, Max Schleser
	17:10	P-11		Ergo-Studio – (An experiential approach to teaching and learning ergonomics.) A case-study on teaching and learning ergonomics in a studio mode	Gourab Kar
December 1, 2021, Parallel Session 3D (15:30-17:30) (Hall 4)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Sheetal M. Gokhale	15:30	P-314	Design Application	Mind's Eye and the Cinematic Lens – An analysis of metaphoric themes and their cinematic adaptation...	Sheetal Gokhale, Ravi Mokashi Punekar, Debapriya Basu
	15:50	P-211		Combined use of selected UX research tools and creation of user persona for design and evaluation of sustainable e-commerce Apps: a case study	Ishika Goswami, Monomoy Goswami
	16:10	P-216		The need of a digital typeface for Assamese script	Bedanta Batchas, Mohammad Shahid
	16:30	P-131		Perception and Continuous Intention of Wearable Fitness Trackers Among Different Age Groups: En Route Towards Health and Fitness	Swati Sarkar, Prof. Debkumar Chakrabarti
	16:50	P-34		Oro White Toothbrush Design and Conceptualising Dental Caries Detection Method	Bitopan Kalita, Ashish Sharma
	17:10	P-99		Re-learning Puberty: Minimising Period Shaming in Urban Schools	Kavya Kulshreshtha, Saurabh Tewari
December 1, 2021, Parallel Session 3E (15:30-17:30) (Hall 5)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Bhaskar Saha and Prof. Devashish Sen	15:30	LL-5	Design Application	Digital technology and Artistic skill in creative production- Respect of Animation Entertainment platform	Bhaskar Saha
	15:50	P-50		The Impact of Service Quality on Customer Loyalty of Indian E-commerce Industry: The Mediating Role of Customer Satisfaction	Pragati Agarwal, Akansha Verma, Sunita kumari Malhotra, Sanjeev Swami
	16:10	P-5		Design of personal protective wear for disabled people: An improvisation on ergonomics	Surya Bharath, Mohammed Zakriya
	16:30	P-26		Bucky- The study of an Ergonomic Design Intervention for a Bucket carrying task	Sudip Ray, Tanmayee Puntambekar, Shivangee Tilak, Swasti Gautam, Samantha Dimal
	16:50	P-190		Application of Immersive Media to Develop Model Making Skills of Industrial Design Learners	Shakti Banerjee, Anirban Chowdhury, Anmol Srivastava
	17:10	P-210		Exploring Aesthetics of Vastu Shastra; Transformation of Domestic Architectural spaces.	Jency P A, Sonal Atreya
December 1, 2021, Parallel Session 3F (15:30-17:30) (Hall 6)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Samrat Deb	15:30	LL-6	Industrial Ergonomics & Design	Occupational health, Work pattern and psychological factors association with accidents occurrence among the non-government city bus drivers in Kolkata	Samrat Deb
	15:50	P-47		Traditional cultivation practices of water chestnut in Northeast India: A field survey	Jitesh Singh Chauhan, Hijam Jiten Singh, Sougata Karmakar
	16:10	E06		Dimensions Identified for Physical Ergonomic Analysis in Manufacturing Industries: A Review	Shreyas M, Sudharshan N, Vinay K B, K S Ravi
	16:30	E20		Post Shift Exercises to prevent repetitive strain disorders – A trend that can be started on the Shopfloor	Soumya Prabhat Jati
	16:50	E21		Health Buddy- the new methodology for industrial welllness.	Soumya Prabhat Jati
	17:10	E29		Study on the Effectiveness of Manufacturing Execution System (MES) in Manufacturing Industries	Isaac Patturaja G B

Day 2 (December 2, 2021)

December 2, 2021, **Plenary Session 1A**, Hall 1

Session	Schedule	Author(s)/Speaker(s)
Session Chair Prof. Ashish Goswami	09:00	D. Majumdar
	09:20	Rauf Iqbal
	09:40	Fransisco Dos Santos Rebelo
	10:00	Jhareswar Maiti
	10:20	Netai Chandra Dey
	10:40	K.N. Sen
	11:00	Mohammad Iqbal
	11:20	Asis Goswami

December 2, 2021, **Plenary Session 1B**, Hall 2

Session	Schedule	Author(s)/Speaker(s)
Session Chair Prof. Somnath Gangopadhyay and Dr. Madhusudan Pal	09:00	Somnath Gangopadhyay
	09:20	Dibakar Sen
	09:40	Shamsul Bahri
	10:00	Anant M. Chakradeo
	10:20	Darius Ganaraj Solomon
	10:40	K.N. Dewangan
	11:00	P Parimalam
	11:20	Madhusudan Pal
11:40	L.P. Gite	

Lunch Break (12:00-13:00)

December 2, 2021, Parallel Session **2A (13:00-15:00)** (Hall 1)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Shilpi Bora	13:00	P-293	Occupational Health	Measuring the work stress Level among Nurses During second wave	Shilpi Bora, Pallavi Rani
	13:20	P-277		Ergonomic study on farmers involved with cotton harvesting in Haryana	Neha Neha, Vinu Vimal V J, Sangeeta Pandit
	13:40	P-304		Assessing Lung Functions Status in Male Human Resources engaged in Wood processing Works: Using Surrogate Markers	Tanaya Santra, Surjani Chatterjee, Sandipan Chatterjee, Enakshi Chakraborty, Neepa Banerjee, Baidyanath Pal, Shankarashis Mukherjee
	14:00	P-187		Ergonomic Analysis of Manual Activities among Dairy Farm Workers: A Literature Review	Umesh Gurnani, Sanjay Kumar Singh, Manoj Kumar Sain, M L Meena
	14:20	P-289		Analyzing the hand grip strength of carpenters	Lalit Kumar Sharma, Manoj Kumar Sain, M L Meena
	14:40	P-93		Analysis of Risk Factors (Psychological and Musculoskeletal Disorders) Associated with Smart Phone Usage among Indian Users	P Shrisowmya, Kanagasabai Adalarasu, S Monisha Gowri, T Aravind Krishna

December 2, 2021, Parallel Session **2B (13:00-15:00)** (Hall 2)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Dilip A Patel	13:00	LL-7	Occupational Health & Safety	Enhancement of Construction Workers' Safety by Controlling Ergonomics Hazards using Internet of Thing (IoT)	Dilip A Patel
	13:20	P-297		Perception Shift Towards (Inter)personal Space: Public Transport and	Vidushi Jaya, Sanjram Premjit Khanganba
	13:40	P-98		Development of risk assesment system for sewing machine operators	Aastha arora, Manoj Tewari
	14:00	P-141		Identification of Ergonomic Risk factors in Dhokra bell metal handicraft industry of Chhattisgarh, India	Avinash Sahu, Rajat Kamble, Garima Borker, Sangeeta Pandit
	14:20	P-270		A study on the Discomfort Experienced by Foundry Workers and Automation for Reducing the Discomfor	Asif Qureshi, Darius Solomon
	14:40	P-265		Ergonomic Risk Assessment of Office Workers in a Consulting Firm in Kerala	Nikhila Ann Anil, Raghunathan Rajesh
	15:00	P-256		Fishbone Diagram Analysis for Assessing Ergonomic Risks in Onshore Oil Rig Operations	Alex Bernard

December 2, 2021, Parallel Session **2C (13:00-15:00)** (Hall 3)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Dr. Abhirup Chatterjee	13:00	P-194	Cognitive Processing and Response	Design for cognitive development of kids: A case study of developing interactive toy for small children	Piyush Inchurkar, Prakash kumar
	13:20	P-191		Evaluation of Comprehensibility of a Sign by Triangulation method	Sangeeta Bhanja Chaudhuri, Manoj Majhi, Sougata Karmakar
	13:40	P-15		Efficacy of sex differences on the perceptual experience of virtual building Images	Manish Kumar Asthana, Sambath RD, Sharmili Mitra
	14:00	P-43		Impact of writing tools in evolution of Telugu script.	Chakradhar Aalla, Mohammad Shahid
	14:20	P-135		Impact of acoustic distraction and overcrowding on cognitive performance of healthcare professionals	Abhijit Kakati, Amarendra Kumar Das
	14:40	P-263		Experience of Cognitive Workload during In-vehicle Distractions	Sanjram Premjit Khanganba, Sajad Najar
	15:00	E17		Alterations in Cognitive Performance associated with Mobile phone usage in the Eastern and North-Eastern Indian populatior	Sania Sultana

December 2, 2021, Parallel Session 2D (13:00-15:00) (Hall 4)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Nanki Nath	13:00	P-04	Design application and communication	Engaging Design Projects: a PBL Framework for the New Normal Communication Design Educator	Nanki Nath
	13:20	P-127		Participatory Design of a Computer Mouse	Pranjal Protim Borah, Swati Pal, Shimmila Bhowmick, Keyur Sorathia
	13:40	P-173		Digitizing the street vending market	Abhishek Singh, Pratul Chandra Kalita, Gurdeep Singh, Raksha Singh
	14:00	P-212		Understanding the Experiential, Experimental and Spirited aspects of typography	Mohammad Shahid
	14:20	P-215		Effect of A Six Week App Based Ankle Proprioception Training Program on Balance in Fencers	Srinivasa Rao Pachava, Simran S Shakeel
	14:40	P-78		Sustainability: Indian Cultural Heritage through Game Design Concept	Swarnadeep Nath, Bhaskar Saha, Subash Rai, Debkumar Chakrabarti
December 2, 2021, Parallel Session 2E (13:00-15:00) (Hall 5)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Prof. Ravi Mokashi Punekar	13:00	P-71	Design application and communication	Visual Analysis of Narratives in Naamghars of Assam	Charu Monga, Amrendra Kumar Das
	13:20	E04		Looking at Social and Rural Development from a Multidimensional Perspective	Rituparna Choudhury
	13:40	P-268		The revival of the tribal community by the concept of S.M.A.R.T. Village: A case of Sabar tribe of Jharkhand	Nazish Abid, Mohd Resaal Ansari
	14:00	P-160		A Village in the City	Pulama Oinam, Sonal Atreya
	14:20	P-92		An exploration of animation support to documentary film for better communication	Subash Rai, Swarnadeep Nath, Prof. Debkumar Chakrabarti
	14:40	E37		Assessment of frequency use of controls on self-propelled combine harvesters under dynamic condition	Prabhakar Shukla
December 2, 2021, Parallel Session 2F (13:00-15:00) (Hall 6)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Dr. Shakuntala Acharya	13:00	E13	Design Application & Ergonomics	Artistic view of "Smart Bus Terminus" master plan, design and 3D models for implementation in Indian cities	S. Vigneshwaran, Yeddula Bharath Simha Reddy, Praburanganathan
	13:20	P-100		Development of mastectomy bra for breast cancer survivors	Shivangi Sahni, Kritika Dhawan, Manoj Tiwari
	13:40	P-300		Kinetic reciprocity in Landscape Architecture: An exploration of circulation patterns in Dutch Urban Parks	Barsha Amarendra
	14:00	P-118		Comparative visual analysis of brick architecture ornamentations of the Ahom monuments in Sivasagar, Assam, India	Saurav Deori, Utpal Barua
	14:20	P-75		A sustainable approach for the urban sprawl of Kolkata (Circa 1690-2020)	Shilpi Chakraborty, Shiva Ji
Tea Break (15:00-15:30)					
December 2, 2021, Parallel Session 3A (15:30-17:30) (Hall 1)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Sangeeta Pandit	15:30	LL-8	Occupational health	Ergonomic assessment of hand related occupational pain symptoms among Bagh hand block print artisans of handcrafted textile industry of Madhya Pradesh, India	Sangeeta Pandit
	15:50	P-214		Subject Matter Experts versus OSH Practitioners: Criteria Selection for the Assessment of Pushing and Pulling of Wheeled Equipment in the Workplace	Harikrishnan Tamilselvan, Mohd Nasrull Abdul Rahman
	16:10	P-306		Impact of practicing Bharatnatyam dancing on obesity status in terms of adiposity indices in human resources engaged in white collar jobs: A Study in Bengalee Females	Neepa Banerjee, Tanaya Santra, Sweety Bardhan, Santanu De, Shankarashis Mukherjee
	16:30	P-280		The role of Postural Assessment Techniques in different workplaces: A Review	Sanjay Mohan, Ankush Anand, Rajiv Kumar, Mohd Kamal
	16:50	E01		Design of workplace for women worker in fish dressing operation	Vijay V. Awara, Jagdish K. Khurdal, R.R. Potdar
	17:10	E16		Facets of Job Satisfaction and Challenging Encounters in Dentistry: A Cross-sectional Study	Garima Pant and Deepa Vinay
December 2, 2021, Parallel Session 3B (15:30-17:30) (Hall 2)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Swati Pal	15:30	LL-9	Ergonomics and Design	Ergonomics and Design	Swati Pal
	15:50	P-84		Design of Safety Helmet for Construction Workers and Evaluation Using Digital Human Model	Ashish Thulkar, Anirban Chowdhury
	16:10	P-30		Why does an Indian Construction Worker Fail to Wear Personal Protective Equipment (PPE) at Workplace?	Vigneshkumar Chellappa, Urmil Salve
	16:30	P-309		Personalizing Helmet Designing for Bengalee Adolescents receiving Training in Hockey: An Anthropometric Approach	Enakshi Chakraborty, Satabdi Bhattacharjee, Sweety Bardhan, Ayan Chatterjee, Neepa Banerjee, Shankarashis Mukherjee
	16:50	P-318		OSH risk perception of safety managers and scope for ergonomics design interventions in Floating Solar Photo-voltaic project	Abhijit Sen, Sougata Karmakar
	17:10	P-229		Fatigue analysis of recreational road cyclist in terms of blood lactate concentration and nutritional intake	Ekta Kapri, Manju Mehta, Iran Singh

December 2, 2021, Parallel Session 3C (15:30-17:30) (Hall 3)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Anirban Chowdhury		LL-10	Cognitive Processing and Response	Human Factors and Behavioural Design	Anirban Chowdhury
	15:30	P--54		Empathy, Vulnerability and learning theories in Higher Education	Vikram Mathur, Anirban Chowdhury
	15:50	P-117		Driver behaviour as an influential factor for enhanced long distance bus travel experience as applied to elders doing pilgrimages – A survey based study	Chinmaya Krishnan G, Prof. Debkumar Chakrabarti
	16:10	P-302		P302. Cognitive Status of Adult Bengalee Male Individuals Undergoing Training in Football	Satabdi Bhattacharjee, Tanaya Santra, Ayan Chatterjee, Sandipan Chatterjee, Surjani Chatterjee, Neepa Banerjee, Shankarashis Mukherjee
	16:30	P-48		Development of an Effective Scale for Measuring Empathy of Indian Nurses	Manisha Mohan, Anirban Chowdhury, Suresh Sharma
	16:50	P-157		Workload assessment methods on Train Station Control Room	Madhura Vaidya, Anupam Tiwari
	17:10	P-150		Interrelation of multiple intelligences – an approach to enhance learning	Tulika Borah, Juri Baruah, Amiya Bhowmick
December 2, 2021, Parallel Session 3D (15:30-17:30) (Hall 4)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Dr. Sharmistha Banerjee	15:30	P-264	Design application and communication	A Human Centred Approach to Redesign Prefab and Modular Bamboo Houses	Dipanka Boruah
	15:50	P-176		Sustainability a tool for employment opportunities	Abhishek Singh, Pratul Chandra Kalita, Raksha Singh
	16:10	P-257		Depiction of Interaction and Effective Waste Management Planning: Design for Sustainability	Lipika Basumatary, Sandipan Bhattacharjee, Bhaskar Saha
	16:30	P-53		Proposed improvisation in gun shooting skills, especially on moving targets to enhance efficacy of shooting training vis-à-vis modern day's security preparedness	Krishna Parasaram, Urmi Salve
	16:50	P-69		Gender role portrayal in Indian advertisement: A Re-view	Partha Das, Manoj Majhi
	17:10	P-74		Sustaining Heritage Culture through Visual Narrative Design	Yendrebam Suresh Singh, Bhaskar Saha
December 2, 2021, Parallel Session 3E (15:30-17:30) (Hall 5)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Abhishek Singh	15:30	E18	Design application and ergonomics	A study on newness in Electric Scooter through styling exercise:	Abhishek Singh
	15:50	LL-17		Motorcycle Design Ergonomics	Praveen Velagapudi
	16:10	P-3		Redesigning the Basket support for the Tea Plantation workers- Occupational Safety and Health Design	Tanya Prasad
	16:30	P-245		A peer to peer teaching model for enhancing the accessibility to and quality of education in India	Ishika Goswami, Abhishek Singh, Mithravinda KG
	16:50	P-2		Designing Cannula Cover to Avoid Infections in Central Venous Catheter	Ameya Pathak, Neela Rajhans, Atul Sajgure
	17:10	E23		Application of the novel PSAV design method for user flow hypothesis validation in user experience design	Abhijeet Shukla
	17:30	P-202		Heuristics of smartphones and tablets to identify human factors for improving user experience	Vidhita Dadarkar, Anupam Tiwari
December 2, 2021, Parallel Session 3F (15:30-17:30) (Hall 6)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Dr. Rauf Iqbal and Dr. Hitesh Sharma	15:30	P-246	Multifacet design intervention	Gauging Global Green Governance of the Millennium: The Roadway Towards Human Progression	Partha Naskar
	15:50	P-39		An Intensive Analysis of the Problems & Strategies implemented during the COVID - 19 outbreak: Mitigate, Recover, Rehabilitation and build Resilient communities	Riya Shroff, Ganesh Jadhav, Pankaj Dhattrak
	16:10	P-282		User-centered non-suburban Indian passenger train	Archana Archana
	16:30	P-73		Quantitative and Qualitative Study on Lifestyle of Polycystic Ovarian Syndrome or disease (PCOS/PCOD) patients	Yagnesh Gohil, Puneet Tandon
	16:50	E02		Evaluation of operators' workplace layout on Indian tractors	Rahul R. Potdar, C. R. Mehta, K. N. Agrawal, L. P. Gite,
	17:10	E11		SMARTPHONES -A Major contributor to E-WASTE	Mitali Vaidya, Anupam Tiwari
	17:30	E19		Lack of Civic Sense: Swachh Bharat Mission	Anamika Yadav

Day 3, Paper presentation [Session-2] (10:00-12:00)

December 3, 2021, Plenary Session 1A, Hall 1

Session	Schedule	Author(s)/Speaker(s)
Session Chair Dr. Paresh Ghosh	09:00	Plenary Session
	09:20	
	09:40	
Author(s)/Speaker(s)		
Paresh Ghosh		
Trinath Panchal		
Abid Ali Khan		

December 3, 2021, Plenary Session 1B, Hall 2

Session	Schedule	Author(s)/Speaker(s)
Session Chair Dr. Prakash Dhara	09:20	Plenary Session
	09:40	
Author(s)/Speaker(s)		
Jim Potvin		
Prakash Dhara		

December 3, 2021, Parallel Session 2A (10:00-12:00) (Hall 1)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Bharati Jajoo and Dr. Ashish Kumar Singh	10:00	P-123	Recent trends and Research in Ergonomics	Ergonomic evaluation of workstation components in Work from Home settings during COVID -19 and its correlation with musculoskeletal symptoms: A self- reliant approach	Bharati jajoo, Shweta Bhatbolan, Sudhir Bhatbolan, Reshma S Bachagoudar
	10:20	P-134		Influence of age and ability sensitive ergonomics on a workplace design	Abdur Raoof Khan, Tarush Chandra
	10:40	P-128		Contributing towards Blue economy with Ergonomic assessment of Musculoskeletal Disorder (MSD) among workers involved in Harvesting living resources.	Rajat Kamble, Avinash Sahu, Sangeeta Pandit
	11:00	P-7		Innovative Ergonomic Product Development Process by incorporating TRIZ into HCD.	T Sakthi Nagaraj, H Ganesan, R Jeyapaul
	11:20	P-36		Ergonomics analysis of working posture in household cleaning using Technomatix modelling	Rajat Pratap Singh, Parveen Kalra, Suman Kant
	11:40	P-23		Science mapping to visualize the factors influencing workers' fall from height in construction projects	Vigneshkumar Chellappa, Urmil Salve

December 3, 2021, Parallel Session 2B (10:00-12:00) (Hall 2)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Prof. Ajita D. Singh	10:00	LL-16	Ergonomics in sports	Female bone health- Exercise and aging	Ajita D. Singh
	10:20	P-231		Incidence of forward head and rounded shoulder posture in sports involving overhead activities among university athlete	Sarika chaudhary, Blessy philip, umesh maurya, Shweta Shenoy
	10:40	E32		Cardiovascular and autonomic nervous system alterations during simple and quick balance test in healthy young indian adults	Anilendu Pramanik, Akshita Goel, Priyadarshni Palani, Josheeta Shetty, Bhanu Bawari, Rajatmani Tripathi, Anwar Pasha
	11:00	E15		Analysis and correlation of fitness and strength parameters in volleyball, basketball and handball players of university	Sarika Chaudhary, Bhavika Advani, Shweta Shenoy
	11:20	P-213		Comparison of the hip and trunk muscles activation between cyclists with and without low back pain	Amrinder Singh, Manpreet Kaur, Abhinav Sathe, Shweta Shenoy
	11:40	E-05		Effect of Racquet Head Type over the Muscles Involved During a Badminton Forehand Smash	Dhananjay Sharma, Anilendu Pramanik
	12:00	E-14		Comparison of Selected Biomechanical and Physiological Variables among Novice and Experienced University Basketball Athletes	Ridham Thakral, Garima Joshi, Anilendu Pramanik
	12:20	E-31		Electromagnetic field based perturbations on Heart Rate Variability in University Recreational Athletes	Garima Joshi, Soubhory Ganguly, Sudeshna Das, Anilendu Pramanik

December 3, 2021, Parallel Session 2C (10:00-12:00) (Hall 3)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Indranil Manna	10:00	P-323	Agriculture and Ergonomics	Influence of Yoga Practice on Body Composition and Cardio-Respiratory Functions of Adolescent Male	Indranil Manna
	10:20	P-130		Identification of ergonomic problem of paddy harvesting due to climatic change at small scale farms of Kerala, India	Vinu Vimal V J, Neha Neha, Sangeeta Pandit
	10:40	P-86		Prevalence of Musculoskeletal Disorders (MSDs) among the Agriculture Workers: A Review	Ram Charan Bairwa, M L Meena, G.S. Dangayach, Rahul Jain
	11:00	P-179		Drudgery estimation in walking behind the power tiller during field operation	Prabhanjan Pranav, B Surya Kumar Chhetry, Mrinmoy Biswas
	11:20	E12		Occupational Safety and Health in Agricultural Sector	Jyoti Nayak, Chaitrali S Mhatre, P. K. Rout

December 3, 2021, Parallel Session 2D (10:00-12:00) (Hall 4)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Subir Das	10:00	LL-11	Cognitive Processing and Response	Ergonomic Design Intervention for the Indian Industrie:	Subir Das
	10:20	P-97		Determination of Effects of Instrumental Music on Brain Signal using Electroencephalogram	Keerthik Dhivya Rajakumar, Jagannath Mohan, Rajeswari Jayaraj, Adalarasu Kanagasabai
	10:40	P-104		A Systematic Review of the Effects of Noise Characteristics on Human Mental Performance	Dipayana Das
	11:00	P-305		Bengalee Adolescents' auditory and allied issues:A Study in southern Bengal	Sandipan Chatterjee, Surjani Chatterjee, Bijan Kumar Saha, Sweety Bardhan, Shankarashis Mukherjee
	11:20	P-77		Consciousness in yoga for the transformation of human potentiality	Malay Sinha
	11:40	E24		Combined effect of a multi-strain probiotic and prebiotic on cognitive processes, body composition and exercise performance on university athletes after 15 days interventior	Simran Ohrai, Anilendu Pramanik, Shweta Shenoy

December 3, 2021, Parallel Session 2E (10:00-12:00) (Hall 5)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Subhashis Sahu	13:00	LL-12	Occupational health	Wellbeing during lockdown and new normal life style: Ergonomic perspectives	Subhashish Sahu
	13:20	P-308		Optimizing Roti making in Street Food Outlets: A Human Factors Perspective	Sayantika Saha, Enakshi Chakraborty, Sweety Bardhan, Surjani Chatterjee, Neepa Banerjee, Shankarashis Mukherjee
	13:40	P-181		Re-design and Ergonomic Assessment of a Handcrafted Kalash Polishing Equipment	Krishna Chaitanya Mallampalli, Swati Pal
	14:00	P-35		Ergonomic risk factors among eye care specialists- A study of community outreach health camps of Assar	Abhijit Kakati, Amarendra Kumar Das
	14:20	E28		Understanding visual cultural elements of the social entry gates of Assam from the perspective of native people of the state	Hitesh Sharma
	14:40	P-224		Prevalence of Musculoskeletal Discomfort among Banking Employees in Assam, India	Porineeta Phukan, Vashima Veerkumar, Neha Rathore, Neerja Jaiswal
December 3, 2021, Parallel Session 2F (10:00-12:00) (Hall 6)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Manoj Majhi	10:00	E25	Visual communication and ergonomics	An exploration of multimedia in communication design	Manoj Majhi
	10:20	E26		Creativity in Digital Design: Comparison with Print-Based Graphic Design	Amitabh Bordoloi
	10:40	E35		Informal Urban Spaces and Place Identity	Somya Mishra and Deb Kumar Chakraborti
	11:00	E27		An exploratory study of different visual design elements representing the culture of Madhya Pradesh, state of India	Hitesh Sharma
	11:20	P-303		Cognitive Ability improves in Indian Classical Dancing :A Study in Bengalee Female	Surjani Chatterjee, Neepa Banerjee, Sandipan Chatterjee, Sweety Bardhan, Sayantika Saha, S Mukherjee
Lunch Break (12:00-13:00)					
December 3, 2021, Parallel Session 3A (13:00-15:00) (Hall 1)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Supradip Das and Shareka Iqbal	13:00	P-31	Design application and Ergonomics	To explore an innovative process to offer personalized learning by providing localized accessibility for both teachers and students with the help of a mobile application	Himadri Saloi, Abhijit Padun, Abhay Verma
	13:20	P-59		Status of Political Cartoons in Indian Society: A Human Comination Perspective	Prasun Chakraborty, Anirban Chowdhury
	13:40	P-322		User Survey of UPI-enabled Payment Apps	Siddhi Chavan, Praduemna Gore, Ganesh Bhutkar
	14:00	P-239		(Fatigue analysis of recreational road cyclist in terms of blood lactate concentration and nutritional intake) Assistive devices applicable for inclusive design in Higher Educational Institute in India: A systematic review	Priyanka Yadav, D. Udaya Kumar, Sougata Karmakar
	14:20	E03		Evaluating Ergonomics and Disease Correlates with Safety Shoes Usage in Bokaro Steel Plant	R.Kumar, T. Pachal
	14:40	P-44		Exploring pedagogical influence and cognitive learning on children by implementing innovative instructional design methodology for learning english alphabet writing from drawing	Abhay Verma, Abhijit Padun
December 3, 2021, Parallel Session 3B (13:00-15:00) (Hall 2)					
Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Session Chair Dr. Pankaj Upadhyay	10:00	P-138	Recent trends and Research in Ergonomics	Identifying ergonomic issues and re-designing of mango plucking tool	Amol Patil, Amrita Bhattacharjee
	10:20	P-112		Preliminary Survey in FMCG Shop-floors to Understand Operational for Identifying Activities Ergonomic Stressors: A Case Study from North-east India	Gurdeep Singh, Sougata Karmakar
	10:40	P-82		Design Implementation and Academic Correlation for Harmonizing Contemporary Usage and Heritage of Bodo Traditional Attire	Chaitali Brahma, Bhaskar Saha, Prof. Deb Kumar Chakraborti
	11:00	P-33	School Ergonomics	Understanding the usability of school stationery and the scope for innovation	Jay Khopey, Tejal Kalgutkar, Ayush Srivastav, Siddhartha Mukherjee
	11:20	P-247		The ergonomics of play - Recalibrating 'playspaces' of Thiruvananthapuram government primary schools towards inclusivity	Eva Thomas, Aishwarya Padmanabhan
	11:40	E22		The Effect of School Bag Carriage on adopted Speed and Handgrip Strength in children: An Explorative Study	Ruchira Mukherjee

December 3, 2021, Parallel Session 3C (13:00-15:00) (Hall 3)

Session/Session Chair	Schedule	Code	Track	Title	Author(s)/Speaker(s)
Lead Lecture and Session Chair Dr. Subrata Ghosh	13:00	LL-14	Occupational Health	In search of Novel Predictors of Aggression amongst pre-pubertal Children of Bengal: An attempt of Facial Anthropometry assisted Clinical Bio-chemical assessments	Subrata Ghosh
	13:20	P-24		Assessment of Respiratory Health of Wood and Stone Occupation Workers: A Review	Yogesh Mishra, Ashish Singh, M L Meena, G.S. Dangayach
	13:40	P-119		An Ergonomic Evaluation for Designing Workstation for Fish Vendors	Jordan P, Priyanka Sen, Purni Barve, Rhea Mirje, Debasis Haldar
	14:00	P-182		Ergonomic Risk Factors Associated with Pineapple Harvesting Task in Northeast India	Hijam Jiten Singh, Jitesh Singh Chauhan, Sougata Karmakar
	14:20	P-315		Ergonomic risk assessment of rubber tappers using Ovako Working Posture Analysing System (OWAS)	Abi Varghese, Vinay Panicker, Jeffrey Abraham, Jobin Gimmi, Judson Tom, Kevin Desini
	14:40	P-235		An Ergonomic study on Prevalence of Work related Musculoskeletal Disorder among IT Professionals Working from Home in COVID-19 Pandemic	Jigisha Patel, Tirthankar Ghosh

Valediction (Starting at 15:00 hrs)