



**DAY 1 (14<sup>th</sup> DECEMBER 2018)**

**Plenary Session 1: 11:00 am – 1:00 pm; Venue: CETAA Hall**

<b>Keynote 1</b>	<b>Turning ergonomics into innovation"; Design of ergonomics in the Hi Tech industry</b>	<b>Dr. Eva Honeyman, Vice Chairperson, Israel Ergonomics Association, Head of Ergonomics at Ergo group</b>
<b>Keynote 2</b>	<b>Design Ergonomics and Cultural Relevance of Newness</b>	<b>Dr. Debkumar Chakrabarti, Indian Institute of Technology Guwahati</b>
<b>Keynote 3</b>	<b>Motion stereotype of common control-display in Bengali (Indian) population: effect of work related stress</b>	<b>Dr. P. C. Dhara, General Secretary, Indian Society of Ergonomics</b>

**TIME: 2:00 – 3:30 PM: SESSION 1**

**SESSION 1A : AGRICULTURAL ERGONOMICS 1**

Lead Lecture		Fabricating shovel using bamboo composite- a green ergonomics approach	Dr. M Muzammil, Aligarh Muslim University
SI. No.	Paper ID	Paper Title	Author(s)
1	010	Design and fabrication of a compact low-cost rice harvesting machine	Mukil MV and Elangovan M
2	022	Ergonomic Assessment of Chaff Cutting Task using Conventional Cutter	Md. Samiullah Ansari, Faisal Hasan, Siddharth Bhardwaj and Vikas Upadhyay
3	024	Empowering Women in Rice Farming Through Gender Sensitive Farm Mechanisation and Ergonomic Evaluation of Walking Type Rice Transplanter for Women	Bini Sam and Akhila R Pillai
4	025	Ergonomical Assessment of Diesel operated Mini Tiller for Homestead farming	Bini Sam, Vishnu Kumar V S and Vishnu S
5	027	Problems Associated With Traditional Harvesting Techniques In India.	Ameya Pathak, Vicky Sardar and Neela Rajhans
6	040	Ergonomic Design of Vegetable and Fruit Cutter	Vamsi Krishna Udakam, Naga Phani Kumar Potturi, Divya Sri Buddana and Dr.S.A.Basha

**SESSION 1B : COGNITIVE ERGONOMICS 1**

Lead Lecture		Minimising the cognitive load of typing in an Abugida	Dr. Anirudha Joshi, IIT Bombay
SI No:	Paper ID	Paper Title	Author(s)
1	013	A Cognitive Study on Duration of Work	Debasis Haldar, Mukesh Kumar Kamti, Bhawana Rathore and Rauf Iqbal
2	038	Assessment of cognitive performance of delivery persons	Mohd Parvez and Abid Ali Khan
3	063	The effect of delayed circadian rhythm on cognitive ability due to use of electronic gadgets among rural school children (10-15 years)	Koumi Dutta, Devashish Sen and Subhashis Sahu
4	068	Job Satisfaction- A study among engineering college teachers in Kerala	Ranjit Thomas, Dr. Anitha Suseelakumari and Dr.I Nelson Joseph
5	082	Impact of Music on Working Memory	Minerva Rajendran and Venkatesh Balasubramanian
6	099	Effect of colour and font on cognitive load	Lavanya Vs
7	112	An Ergonomics Assessment of Bank Deposit Forms	Prakash Kumar, Sukriti Agarwal and Prakarati Pateria

**SESSION 1C : ERGONOMICS IN TRANSPORTATION 1**

Lead Lecture		Task analysis of Histotechnician's work pattern in Indian Medical Laboratories and ergonomics intervention	Dr. Rauf Iqbal, NITIE, Mumbai
SI No:	Paper ID	Paper Title	Author(s)
1	008	Anthropometric study on south Indian heavy commercial truck drivers	Jinesh Vinayachandran and Biju B
2	029	A Framework on Design and Ergonomics of Amphibian Vehicle	Debashis Majumder and Anirban Chowdhury
3	054	Locating and addressing the need of Inclusive passengers in Indian trains coaches for comfortable travelling	Archana Archana and Deepak Kumar
4	067	Ideal bike riding posture	Dr Soumya Prabhat Jati
5	081	Elucidation of interrelations among different components of driver behaviour in motorized two wheeler drivers aiming to device behaviour based safety.	Ruchira Mukherjee, Koumi Dutta, Bibaswan Basu and Devashish Sen
6	087	A Comprehensive Questionnaire Based Assessment of Driver Behavior	Swathy Parameswarab and Venkatesh Balasubramanian

**SESSION 1D: ANTHROPOMETRY AND WORKPLACE DESIGN**

Lead Lecture		Ageing and Work ability of workers	Dr. Nandita Bhattacharyya, Assam Agricultural University Jorhat
SI No:	Paper ID	Paper Title	Author(s)
1	062	Postural assessment while performing a drilling task using the Kinect sensor for a hand drilling machine.	Mohd Shah Faizan, Ziauddin Shah Fahad and Mohammad Muzammil
2	101	Health and Workplace Assessment of Corporate Office Desk Workers	Apoorva Chandwani, Manjit Kaur Chauhan, Archana Bhatnagar, Sunil K Devnani and Makarand Kaprekar
3	140	Linkage between Select Anthropometric Measurements and Pulmonary function indicator: a Study in Female Human Resources engaged in Bidi manufacturing	Tanaya Santra, Ayan Chatterjee, Satabdi Bhattacharjee, Sandipan Chatterjee, Surjani Chatterjee, Neepa Banerjee and Shankarashis Mukherjee
4	154	Intervention in Jaggery processing units- simple solutions to work place design	Keerthana Pm and Parimalam P

**TIME: 3:45 – 5:15 PM: SESSION 2**

**SESSION 2A: AGRICULTURAL ERGONOMICS 2**

Session Chair		Dr. K. Gopalakrishnan Nair	Professor (Retd. ), College of Engineering Trivandrum
SI No:	Paper ID	Paper Title	Author(s)
1	056	Ergonomic assessment of deep rooted crop stalk uprooter	Ajit Magar, Bhaskar Gaikwad, Ashutosh Pandirwar and Rahul Potdar
2	072	Assessment of Thermal Working Environmental Condition and Cardiac Response Indicators in Male Agricultural Workers Engaged in Traditional Manual Paddy Threshing Task	Ayan Chatterjee, Sandipan Chatterjee, Neepa Banerjee, Tanaya Santra, Surjani Chatterjee and Shankarashis Mukherjee
3	074	Assessment of Postural Discomfort in Male Paddy Cultivators in southern Bengal	Ayan Chatterjee, Sandipan Chatterjee, Satabdi Bhattacharjee, Tanaya Santra, Neepa Banerjee and Shankarashis Mukherjee
4	098	Ergonomic risk assessment of body postures of farmers in agricultural field in a small village in West Bengal, India	Subhadip Samanta and Dr. Debamalya Banerjee
5	134	Gender specific agricultural tool for enhanced productivity and human health	Parimalam P, Padmanathan Pk, Logeswari S and Nallakurumban B
6	136	Assessment of Drudgery Load of Farm Workers Involved in Flower Harvesting Activity and Technology Intervention	Jayshree Zend and Manjusha Revanwar

**SESSION 2B: COGNITIVE ERGONOMICS 2**

Session Chair		Dr. K. Krishnakumar	Joint Director of Technical Education, Kothamangalam, Kerala
SI No:	Paper ID	Paper Title	Author(s)
1	121	Assessment of Mental Health of South Indians using DASS Scale	Adalarasu K, Vishal K, Mahalakshmi R, Sanjana H and Vaishanave S
2	123	Imperative Indian-ness in Indian Cartoon Character Design	Bhaskar Saha, Sandipan Bhattacharjee, Abhirup Chattarjee and Debkumar Chakrabarti
3	124	An Experiential Study: Effect of Exaggeration in the Animation Execution	Subash Rai, Bhaskar Saha, Dipankar Nath and Debkumar Chakrabarti
4	138	Reducing Book Finding Time in Library for Novice Users through Cognitive Ergonomics	Vikash Kumar and Sarthak Chopra
5	139	Self-Management through Bhagavad Gita: Now and Then	Sarath P
6	170	Outdoor sitting behaviour in evening hours of educational campus	Sumit Yadav

**SESSION 2C: HUMAN COMPUTER INTERACTION**

Session Chair		Dr. A Sukesh Kumar	Professor (Retd. ), College of Engineering Trivandrum
SI No:	Paper ID	Paper Title	Author(s)
1	046	Feature selection and classification of gripping based on sEMG signals	Salman Mohd Khan and Abid Ali Khan
2	114	Laptop Ergonomics and Occupational Health	Darius Gnanaraj S.
3	128	Optimization of Traffic Policeman Performance in Delhi-NCR Region Using Fuzzy Expert System	Sachin Rathore
4	144	A study on the development and impact of technology enabled work analyzer	Revathy A S and Sajna S
5	163	Overlooking physical reachability and coordinated interaction in group chat	Harsh Chandra and Rik Bhattacharjee

DAY 2 (15<sup>th</sup> DECEMBER 2018)

Plenary Session 2: 9:15 am – 10:45 am; Venue: CETAA Hall

<b>Keynote 4</b>	<b>Ergonomics Certification - How and Why</b>	<b>Dr. A. K. Ganguli</b>
<b>Keynote 5</b>	<b>IEA Activities to Improve Quality of Life through Ergonomics &amp; Human Factors</b>	<b>Dr. Jose Orlando Gomes</b>

TIME: 11:00 – 1:00 PM; SESSION 3

**SESSION 3A: ERGONOMICS IN TRANSPORTATION 2**

Lead Lecture		Computerized Ergonomics and Statistical Forms for Product Design	Dr. Dibakar Sen, IISc., Bangalore
SI No:	Paper ID	Paper Title	Author(s)
1	118	Variation of hand strength among bike riders after experimental trials.	K M Jishnu Devadas and S A Binoosh
2	137	Zero Bunching Solution for a Local Public Transport with Multiple Origin Bus Operation	Sajikumar S. and D. Bijulal
3	146	A study on emission characteristics of HCCI engine, powered by alternative fuels	Nayana Harilal and Firoz N
4	155	An Ergonomic Overview of Factors Affecting Heavy Vehicle Driving Comfort	Asok Kumar N and Regi Kumar V
5	165	Signage Assessment of BRTS for better commuter experience	Saket Belchandan
6	168	Mobility issues in soap dispenser	Ankit Sahu

**SESSION 3B: HEALTHCARE SYSTEMS, WORK PHYSIOLOGY AND SPORTS ERGONOMICS 1**

Lead Lecture		Sports Ergonomics	Dr. Ajita D Singh, Punjab University
SI No:	Paper ID	Paper Title	Author(s)
1	017	Occupational Stress among Health Care Workers	Smriti Singh
2	023	Physiological Cost and Subjective Assessment of Two Stroke and Four Stroke Model Brush Cutters	Bini Sam and Regeena Sumathy
3	048	Ergonomic Assessment of a Workstation in a Coir Industry – a Case study	Marnadian Satheeshkumar and K Krishnakumar
4	057	Comparison of EMG feature sets for knee osteoarthritis patients: a motion pattern recognition	Siddharth Bhardwaj, Abid Ali Khan and Mohammad Muzammil
5	058	Occupational health and safety issues faced by the carpenters	Vijaya Lakshmi Velivelli and Milcah Paul Machavarapu
6	059	Hand anthropometry and body mass index as a risk factor for carpal tunnel syndrome in sports.	Dr Ajita Dsingh and Iftikhar Ali Khan

**SESSION 3C: SAFETY, OCCUPATIONAL HEALTH, AND MUSCULOSKELETAL DISORDERS 1**

Lead Lecture		Preparedness for fire Accidents: HFE Perspective	Dr. S. Mukherjee, University of Calcutta
SI No:	Paper ID	Paper Title	Author(s)
1	030	Risks of developing WMSDs in buffing task- A case study	Nusky Ishrat and Abid Ali Khan
2	043	Study the vigilance of people visiting cinema halls in context of safety	Chetna Raje
3	050	Impact of shift-work duty on health of female traffic police in Mumbai	Ashwini Gaikwad
4	052	Occupational health profile of workers in Terracotta Handicraft Industry	Mukesh Kumar Kamti, Nikhil Ghag, Rauf Iqbal and Karuna Jain
5	066	Modelling of work-related health disorders among women agricultural workers	Kiran Mohan, Madhusudanan Pillai V, Amal Sunny, Abhinav Sidharth, Abishek Srinivasan, Rohith Raj O R, Vahid Mohammed and Vishnu V Kumar
6	073	Postural Risk Assessment of Operators in a Limestone Mine: A Case Study	Santu Durlav, Nikhil Kulkarni, Akshay Dusane, Rahul Mishra and Krunal Lingayat
7	079	Occupational Health Risks and Prevalence of Work Related Musculoskeletal Disorders Among Workers in Stone Industries in North Karnataka	Qutubuddin S M, M.Manzoor Hussain and Hebbal S S

**SESSION 3D: APPLIED ANTHROPOMETRY AND SEATING DESIGN**

Lead Lecture		Ergonomic intervention for making beads and products in bead enterprises	Dr. Sudesh Gandhi, Haryana Agricultural University, Hisar
SI No:	Paper ID	Paper Title	Author(s)
1	034	Development of maximum and optimum reach zones based on anthropometry of Indian male agricultural workers	R R Potdar, C R Mehta, B B Gaikwad, L P Gite, K N Agrawal and V K Bhargav
2	035	Leg strength of female agricultural workers of central India	R R Potdar, C R Mehta, B B Gaikwad, K N Agrawal, P S Tiwari and V K Bhargav
3	039	Ergonomic Design of Solar Powered Prime Mover Operators' Workstation	Prakash Chandra Jena, Rahul Rajaram Potdar and Ram Chandra Singh
4	060	An anthropometric consideration in design of combine harvester seat for Indian operators	Prabhakar Shukla, C R Mehta, K N Agrawal and R R Potdar
5	064	Ergonomic Assessment of College Classroom Furniture	Ekta Kapri and Manju Mehta

6	077	Occupational health of commercial weavers engaged in handloom weaving	Geetashree Bori and Nandita Bhattacharyya
7	078	Understanding human sensitivity towards change in posture related co-ordinates of a two wheeler	Goutham Rajan
8	080	Postural Assessment of Interior Design Students to Evaluate Need for Ergonomic Furniture	Dr. Mona Mehta and Himani Shah
9	107	A study on a motorcycle using DELMIA software	Modi Gnani, Kiran G, Saleem Ahmed and Darius Gnanaraj S.
10	120	Applied Anthropometry in Students' Home Study Furniture across Kerala	Gurmeet Singh and RvIs Priya

**TIME: 02:00 – 03:30 PM; SESSION 4**

**SESSION 4A: BIOMECHANICS AND MODELLING IN ERGONOMICS**

Lead Lecture		Make in India: Ergonomics in Humanizing Design Innovation	Dr. S. Karmakar, IIT Guwahati
SI No:	Paper ID	Paper Title	Author(s)
1	014	A Finite element analysis of an ingress egress system for lower limb disabled tractor operators	Smrutilipi Hota and Virendra Kumar Tewari
2	016	A Finite Element Model based Parametric Study of Plug Muffler Installed on Agricultural Tractors for Noise Attenuation	Naveen Kumar and Virendra Kumar Tewari
3	019	Assessment of waste loading tasks and implications of waste container size	Francis J. Emmatty and Vinay V Panicker
4	021	Digital Human Modelling and Ergonomic assessment of handedness in sweeping task	A.Ajay Vishnu, K. Shashank Siddaveeraiah, K. Venkata Rahul, Nirmal S, Priyanka Thalor, Salma Sultana, Francis J. Emmatty and Vinay V Panicker
5	041	Biomechanics of human movement during Pedalling: Review	Manisha Jagadale, Kamal Agrawal, Champat Mehta, Rahul Potdar and Nandni Thakur
6	111	Need of detail object modelling for creating failure scenarios in DHM simulation	Mayank Badola and Dibakar Sen
7	158	Postural Risk Assessment of Radial Drilling Operators using DHM and Biomechanical analysis	Ashok P., Madhan Mohan G. and Dinesh M. K.
8	171	Influence of side pack load on scapular kinematics in collegiate students during walking	Siddhartha Sen and Dr. Ajita D Singh

**SESSION 4B: HEALTHCARE SYSTEMS, WORK PHYSIOLOGY AND SPORTS ERGONOMICS 2**

Session Chair		Dr. Ajita D. Singh	Punjab University
SI No:	Paper ID	Paper Title	Author(s)
1	061	Techniques for Controlling the Tremor of Hand: A Review	Mohd Shah Faizan and Mohammad Muzammil
2	069	Ergonomic assessment and Design of Chair for workers in the electronic testing unit of a healthcare industry	Nidhi M.B and Rejoy James
3	104	Relationship between motor competence and performance: a study in adult Bengalee males undergoing training in football	Satabdi Bhattacharjee, Neepa Banerjee, Sandipan Chatterjee, Surjani Chatterjee, Ayan Chatterjee and Shankarashis Mukherjee
4	142	An Ergonomic Assessment of Hand Tools used by Workers in Bell Metal Industry in the Districts of Assam	Dipasri Sarma and Manjit Chauhan
5	151	Biomechanical Overload in Physiotherapists	Deepak Sharan, Joshua Samuel Rajkumar Sharan and Rajarajeshwari Balakrishnan
6	159	An examination of ergonomic difficulties in mopping activity.	Harsh Chandra

**SESSION 4C: SAFETY, OCCUPATIONAL HEALTH, AND MUSCULOSKELETAL DISORDERS 2**

Session Chair		Dr. S. Mukherjee	University of Calcutta
SI No:	Paper ID	Paper Title	Author(s)
1	097	Simulating Supported Postures using Digital Human Model	Eazhil Selvan K and Dibakar Sen
2	105	Identification of physical hazard among textile-spinning mill workers	Rajprdeesh T and Vinoth R
3	110	Occupational health and safety campaigns at the National Level in India	Roopa Koshy, T.Raj Pradeesh and R.Mani Kandan
4	113	A study related to WMSDs in Cobblers	Sayali Salvi, Pankaj Kumar and Wricha Mishra
5	115	Ergonomic study on coconut sellers	Sana Fatima Sayyed, Akhilesh Kp and Wricha Mishra
6	119	Computer Aided Posture Analysis for the Assessment of Musculoskeletal Risk among Dentists	S Anoop, B Abhijith Suresh and S A Binoosh
7	127	Task analysis of Histotechnician's work pattern in Indian Medical Laboratories and ergonomics intervention	Shreya Maulik and Rauf Iqbal
8	129	Work related musculo skeletal disorders among women working in packing units of pharmaceutical industry	Prasuna Velaga and Neeraja Telaprolu

**SESSION 4D: COGNITIVE AND ENVIRONMENTAL ERGONOMICS**

Session Chair		Dr. Peter Thomas Honeyman	University of Michigan, Ann Arbor
SI No:	Paper ID	Paper Title	Author(s)
1	003	Stress and work ability of workers engaged in different occupations	Pubali Saikia and Dr.Nandita Bhattacharyya

2	037	Influence of childhood obesity in cognitive development of school children of India compared to developed countries: a Review	Dr. Satabdi Ghosh and Dr. Kuntal Ghosh
3	042	A Study on the effect of indoor room temperature and illumination on the productivity of computer operators in India	K Vimalanathan, T Ramesh Babu and P Prem Narayan
4	071	Work, Its Environment and Health Status of Users: A Study on Domestic Kitchens in Kolkata	Neepa Banerjee, Surjani Chatterjee, Satabdi Bhattacharjee, Ayan Chatterjee, Sandipan Chatterjee and Shankarashis Mukherjee
5	083	Studies on various approaches for designing ergonomically suitable hand bags for Indian market using REBA	Karthikeyan Kattaiya and Krishnaraj Kaliappa
6	088	Analysis of Factors Associated with Fatal and Non-Fatal Road Traffic Accidents in Chennai City	Sathish Kumar Sivasankaran and Venkatesh Balasubramanian
7	109	Review of Indian dust storms encountered in north part of India	Ram Pranav, T.Raj Pradeesh and R.Mani Kandan
8	141	Assessment of Workplace and Work Environment in a Small Textile Industry	Haneen Bhimji and Manjit Chauhan
9	161	A study of littering behaviour of passengers in sleeper coach of Indian Railways	Rahul Kumar
10	164	A study of littering behaviour among users in an educational campus	Ayushi Wakankar

**TIME: 3:45 – 5:15 PM: SESSION 5**

**SESSION 5A: CONSTRUCTION ERGONOMICS**

Lead Lecture		The positive support of Electromyography signal in Prosthetics	Dr. Abid Ali Khan, Aligarh Muslim University
SI No:	Paper ID	Paper Title	Author(s)
1	012	A Study of Construction on Site Safety Practices in Building Projects	Minnu Sebastian and Rajesh R
2	055	Study of Comfort Perception And Postural Requirements Of Mining Equipment Operators Of A Mine In Central India.	Akshay Dusane, Dr. Santu Durlov and Nikhil Kulkarni
3	093	Investigation Into The Dimensions Of Ergonomics Within The Construction Industry For Improved Work Efficiency	Sini Pillai, Ajoy Joseph and Sree Parvathy J S
4	108	Quantifying The Probable Human Error In Indian Construction Sites And Validating It With Expert Elicitation	Ajith S, Sivapragasam C and Arumugaprabu V
5	126	Ergonomic Issues Faced By Construction Workers In Manual Wall Finishing Job.	Reenu Singh, Ashok K Pundir and Rauf Iqbal
6	130	Ergonomic Design Of A Trowelling Tool	Richard Laurence, Kiran G, Darius Gnanaraj S and Saleem Ahmed

**SESSION 5B: DEFENCE ERGONOMICS AND BIOMEDICAL ENGINEERING**

Lead Lecture		How digitization changes workload” (from physical to mental)	Mr. Guenter Fuhrmann, M/s. Ergoneers, Germany
SI No:	Paper ID	Paper Title	Author(s)
1	007	Ergonomic decisions for designing assistive devices - Case of interventions to relieve pressure ulcers	Sandhya C G
2	026	Aspects Related to Dialysis Techniques for End Stage Renal Disease.	Ameya Pathak and Neela Rajhans
3	076	Buffet plate for Parkinson's disease patients	Dr Soumya Prabhat Jati
4	103	Changes in plantar pressure during shod walking at uphill gradient	Suranjana Sen, Subhojit Chatterjee, Debojyoti Bhattacharyya, Dr. Bhuvnesh Kumar and Dr. Madhusudan Pal
5	106	Evaluation of cognitive and physical work load of two extreme military training events	Tirthankar Chatterjee, Debojyoti Bhattacharyya, Angad Yadav and Madhusudan Pal
6	167	Ship's galley layout design for safety and efficiency	Ripon Paul

**SESSION 5C: SAFETY, OCCUPATIONAL HEALTH, AND MUSCULOSKELETAL DISORDERS 3**

Session Chair		Dr. Eva Honeyman	Head of Ergonomics at Ergo group
SI No:	Paper ID	Paper Title	Author(s)
1	131	Working Conditions of Indian glass artware workers and association with Musculoskeletal Symptoms	Bhawana Rathore, Ashok Kumar Pundir and Rauf Iqbal
2	132	Prevalence of Hearing Loss among Tractor Drivers	Lalremruata ., K.N. Dewangan and T. Patel
3	133	DTMF based robot to perform hazardous tasks	Fakhruddin, Athar Zafar, Faizan Ahmad, Mohammad Muzammil and Parveen Farooque
4	135	Musculoskeletal discomforts among farm women in jaggery processing units	Parimalam P and Keerthana Pm
5	143	Ergonomics and Work Stress Issues in Banking Sector	Athira Krishna and Sharanya
6	145	A study on employees stress level in Dreamware Infotech Chennai	Devika S Nair and Sandhya S
7	157	Stress and work ability of the workers engaged in different occupations	Pubali Saikia and Dr. Nandita Bhattacharyya
8	175	Work related Musculoskeletal Disorders in Foundry Worksystems	Asif Qureshi, K Manivannan, Vivek Khanzode and Sourabh Kulkarni

DAY 3 (16<sup>th</sup> DECEMBER 2018)

TIME: 9:15 – 10:45 AM: SESSION 6

SESSION 6A: ERGONOMIC INTERVENTION AND PRODUCTIVITY

Session Chair		Dr. Jose Orlando Gomes	Vice-President & Treasurer, IEA
SI No:	Paper ID	Paper Title	Author(s)
1	002	Ergonomic Evaluation of a Lathe Environment Using Energy Expenditure Prediction Program	Shahnawaz Mohsin, Ahmad Raza and Imtiaz Ali Khan
2	020	Assessment of occupational health among waste sorting workers and ergonomic interventions: a systematic review	Baradwaj K C, Francis J. Emmatty and Vinay V Panicker
3	045	A study on impact of motivation on the performance of employees and the work satisfaction experienced by them	Mona Mehta, Purvi Trivedi and Zainab Ezzy
4	075	Ergonomic analysis of the dimensions of a master arm gripper used in Master Slave Telemanipulator	Alex Bernard and Dr.Rakesh Sharma
5	090	'Make in India': Ergonomics in Humanizing Design Innovations	Sougata Karmakar
6	100	Employee-Employer Relation: A Case Study to Determine the Micro-expression Detection Ability of Employer	Vishnu K V and Sabu K
7	116	Instruction De-composition for Autonomous Task Simulation Using Digital Human Models	Jayant Raj and Dibakar Sen
8	147	Work pressure and employee involvement in banking sector with special reference to state Bank of India	Dr. Jayadev S and Maya Babu Bp
9	149	Impact of Working Environment on the Productivity of Handloom Weavers: A Case of Varanasi	Meghavatu Krishna Prasanna Naik and Dr. Prabhas Bhardwaj
10	162	Way finding Systems in Shopping Malls: A Case Study of DB City Mall, Bhopal	Anik Ghosh and Alhaz Khan

SESSION 6B: ERGONOMICS FOR AGED AND DIFFERENTLY ABLED

Session Chair		Dr. C. K. Pradhan	ICMR, National Institute of Occupational Health, Ahmedabad
SI No:	Paper ID	Paper Title	Author(s)
1	009	Prevalence of overuse injuries due to foot impairments among long distance runners and the effectiveness of sports shoes modifications in their management	Vijayan Gopalakrishna Kurup and Kuppusamy Muralirajan
2	036	Improvement in Gait Cycle with Ankle Foot Orthosis	Falah Hasan, Qasim Murtaza and Faisal Hasan
3	070	Age criteria in RULA, REBA analysis	Dr Soumya Prabhat Jati
4	125	Ergonomics for Differently-abled – Experiences from UG Project on Visually Impaired	Vikash Kumar and Sandip Prakash
5	148	Exploratory Analysis of Artificial Intelligence as a Cognitive Ergonomics Tool for Financial Crisis Management	Reshma G P, Revathy B and Regi Kumar V
6	156	Design and Development of a Low-Cost Foldable Wheelchair for Disabled	Bobby Paul, Darius Gnanaraj, Sam Paul, Sandra John, Martin Paul, Pratish Rajan and Nithin Edassery
7	166	Redesigning of ATM Interface for Illiterate and Semi – Literate Users in India	Saket Belchandan

SESSION 6C: ERGONOMICS IN OPERATIONS, MANUFACTURING, AND PRODUCT DEVELOPMENT

Session Chair		Dr. S. Mukherjee	University of Calcutta
SI No:	Paper ID	Paper Title	Author(s)
1	001	Study on the effectiveness of ergonomics in a manufacturing industry	Isaac Patturaja G B
2	028	Cognitive Performance of Skilled Operators in Control Panel Operation	Mohd Aijaz Siddiqui and Abid Ali Khan
3	031	Assessment of Packaging of Milk Product	Shilpa Tulsankar, Archana Bhatnagar and Manjit Chauhan
4	032	Implementation of Ergonomic-Value Stream Map (Ergo-VSM) approach in a textile industry	Sakthi T, Harikrishnan R and Jeyapaul R
5	094	Analysis of postural and musculoskeletal problems of the workers in food processing enterprises of Punjab	Aprajita Kumari
6	096	Analysis of postural and musculoskeletal problems of the workers in food processing enterprises of Punjab	Abhijith Rajakumar
7	150	A Novel Design for improving Mattress Corner Rounding	Bobby Paul, Philip Jacob Perakathu, Mohanakrishnan A, Toney Varghese, Sherin Abraham, Abin Joseph and Anugrah Varghese
8	153	Design and Development of a Coir Mattress Hydraulic Press Machine	Philip Jacob Perakathu, Bobby Paul, Kiran Mohan, Lino Cherian, Lovin Korah Beji, Mukund H and A Mohanakrishnan
9	173	Smart Manufacturing Techniques In Multi Cavity Sand Casting Process	Rajkumar I, Aswinkrishna M, Kasavan R and Ajith Kumar K
10	174	Human-Centric Worksystem Interactions in Heavy Engineering Industry	Roli Dave, Vivek Khanzode, Vikram Neekhra and Sourabh Kulkarni

TIME: 11:00 – 1:00 PM: SESSION 7

**SESSION 7A: MANUAL MATERIAL HANDLING**

Session Chair		Dr. A. K. Ganguli	President, Indian Society of Ergonomics, Retd. Sr. DGM, BHEL, Thiruchirapally
SI No:	Paper ID	Paper Title	Author(s)
1	006	Determination of lifting index for paddy storage activity performed by farm women	Mira Kalita, Ruplekha Borah and Nandita Bhattacharyya
2	033	An Ergonomic Assessment of Manual Transplanting of Onion Seedlings	Ashutosh Pandirwar, Adrash Kumar, Ajit Magar, Rahul Potdar, Shyam Nath and Deepak Thorat
3	049	Integration of Ergonomic Factors and Engineering Concept in Industrial Trolley Design	Suresh A, Dr. Ramesh Babu B R, Prem Narayan and Deepak Suresh Kumar
4	053	Work ability of the workers engaged in manual tea plucking activity	Dr. Nandita Bhattacharyya and Pubali Saikia
5	065	Postural Assessment of a Load Lifting Task for Female Worker- a Comparative assessment of OWAS, RULA and REBA Method.	Sumaiya, Mohd Shah Faizan and Mohammad Muzammil
6	084	Experimental Investigation on the Effect of Container Design on Maximum Acceptable Weight of Lift	Saman Ahmad and Atif Saleem
7	122	Advanced Ergonomic Aspects of Loading / Unloading of Food Grain Bags in Indian Warehouses	Arjun M, Gogin Haridas and Regi Kumar V

**SESSION 7B: NOISE AND VIBRATION ENGINEERING**

Session Chair		Dr. P. C. Dhara	General Secretary, Indian Society of Ergonomics
SI No:	Paper ID	Paper Title	Author(s)
1	004	Noise Induced Hearing Loss and Hands Arm Vibration Syndrome	Balakrishnan Nair
2	005	Excess risk estimates on hearing of agricultural tractor drivers of India	Abhijit Khadatkar and C.R. Mehta
3	015	Influence of moisture content for thermal decomposition of fireworks star	Manikandan R and Rajesh S
4	091	Effects of Different Frequency of Vibration, Amplitude, and Duration of Vibration Exposure on MVC Grip Strength and Endurance Time	Mohd Mukhtar Alam, Abid Ali Khan and Mohd Farooq
5	092	Analysis of Whole Body Vibrations and Hand Arm Vibration in tampering machine	Syed Imran Shafiq and Faisal Hasan
6	102	A Study on Impact of Environmental Noise on Auditory Status of school going Children of Kolkata	Sandipan Chatterjee, Ayan Chatterjee, Satabdi Bhattacharjee, Surjani Chatterjee, Neepa Banerjee and Shankarashis Mukherjee
7	117	Thermal analysis of chemical composition used in fireworks cracker	V Sunil Kumar, N Malyadri Sai and D S Sai Teja Reddy

**SESSION 7C: SOFT APPLICATIONS OF ERGONOMICS**

Session Chair		Dr. V. Ravi	Indian Institute of Space Technology, Trivandrum
SI No:	Paper ID	Paper Title	Author(s)
1	018	Design and Evaluation of User Interface of an ERP Software for Business Incubators	Anirban Chowdhury
2	047	New Age Banking Without Human Power	Dona Babu and Afsal
3	051	Impact Assessment of Digital Jewelry	Deepak Chandra Goel
4	085	Mobile Diagnostic Test Bench for Quantification of Hand Tremors	Vineeth Surabhi, Priyadarshini Natarajan and Venkatesh Balasubramanian
5	086	Mobile Application for Home-Based Interactive Rehabilitation of Upper Limb Following Fracture	Ajit Raghavendra, Priyadarshini Natarajan and Venkatesh Balasubramanian
6	089	Analysis of Injury Severity Factors among Pedestrians in Metropolitan City- A Data Mining Approach	Sathish Kumar Sivasankaran, Karthikeyan R and Venkatesh Balasubramanian
7	095	Design and control of finger assisting device	Bilal Alam Khan, Ahmad Raza Usmani, Sheeraz Athar, Anam Hashmi, Mohammad Muzammil and Omar Farooq
8	169	The study of user behaviour inside the Gym at School of Planning and Architecture, Bhopal and design a self-measuring fitness tool.	Jayant Kumar

**Note:** Session A Venue: CETAA HALL, Session B Venue: MESH 3, Session C Venue: C-CUBE, Session D Venue: CGPU Hall