IDETC-CIE

Online, Virtual
Virtual Conference: August 17 – 19, 2020

Time (in US EDT)	Session Title	Paper #	Presentation Title	Speaker
Day 1 August 17th (Times in US EDT)				
10:00am - 11:20am	MR-1-1 Mechanisms Synthesis & Analysis	idetc2020-22098	Kinematics, Workspace Optimization, and Performance Evaluation of a 3-Leg 6-DOF Robot in RRRS Configuration	Carl Nelson
		idetc2020-22021	Design of a Piping Inspection Robot by Optimization Approach	Damien Chablat
		idetc2020-22012	A Novel Iterative Method of Determining the Pose Error of Planar Clearance-Affected Flexible Parallel Mechanisms Under Loaded M	Qiangqiang Zhao
		idetc2020-22490	Structure Synthesis of Parallel Manipulators With Fully Decoupled Projective Motion and Any Degrees of Freedom	Chin-Hsing Kuo
		idetc2020-22409	Curve Cognate Constructions Made Easy	Samantha Sherman
		idetc2020-22753	Design of a Large Workspace Passive Spherical Joint via Contact Edge Design	Neil Bajaj
	DTM Human Behavior in Design	idetc2020-22245	Reading the User's Mind: Designers Show High Accuracy in Inferring Design-Related Thoughts and Feelings	Surma-aho Antti
		idetc2020-22252	Human Inductive Biases in Design Decision Making	Murtuza Shergadwala
		idetc2020-22406	Introducing Likelihood of Occurrence and Expected Cost to Human Error and Functional Failure Reasoning Framework	Lukman Irshad
		idetc2020-22527	From Information to Ideas: How Designers Structure Information to Support Idea Generation	Nicole Damen
		idetc2020-22563	Evolution of Brain Network Connectivity in the Prefrontal Cortex During Concept Generation Using Brainstorming for a Design Task	Julie Milovanovic
		idetc2020-22692	Advisory and Adaptive Communication Improves Trust in Autonomous Vehicle and Pedestrian Interaction	Jinjuan She
		idetc2020-22593	The Role of Idea Fluency and Timing on Highly Innovative Design Concepts	Yakira Mirabito
		idetc2020-22641	Effects of Locus of Control Personality Trait on Team Performance in Cooperative Engineering Design Tasks	Alkim Avsar
	DAC 6-1: Design for Additive Manufacturing	idetc2020-22043	Predicting Build Orientation of Additively Manufactured Parts With Mechanical Machining Features Using Deep Learning	Aliakbar Eranpurwala
		idetc2020-22172	Quality Assessment of Additively Manufactured Fiducial Markers to Support Augmented Reality-Based Part Inspection	Jessica Menold
		idetc2020-22182	A Machine Learning-Based Design Recommender System for Additive Manufacturing	Seyedeh Elaheh Ghiasian
		idetc2020-22320	Lattice Structure Optimization With Orientation-Dependent Material Properties	Conner Sharpe
		idetc2020-22575	Structure, Process, and Material Influences for 3D Printed Lattices Designed With Mixed Unit Cells	Paul Egan
	RSAFP in Design Methods and Analyses	idetc2020-22101	Non-Linear Finite Element Analysis of an Open Spline Connection	Felipe Vinaud
		idetc2020-22728	Uncertainty Quantification With Maximum Entropy Method for Fatigue Life Estimation	Ole Balling Hans Agger
		idetc2020-22275	Sampling-Based Reliability Analysis Using Deep Feedforward Neural Network (DFNN)	Ungki Lee
		idetc2020-22371	Development of a Modal Selection Method for Full Strain Field Estimation	Gen Fu
	VIB Conference 1	idetc2020-22338	Parametric Stiffness in Large-Scale Wind-Turbine Blades and the Effects on Resonance and Speed Locking	Ayse Sapmaz
		idetc2020-22395	Nonlinear Reduced-Order Modeling and Aeroelastic Characteristics of a Small-Scale Wind Turbine Blade	Widad Yossri
		idetc2020-22402	Multi-Fidelity Analysis and Manufacturing of Small Scale Wind Turbines for Low-Power Applications	Widad Yossri
		idetc2020-22070	HPC FEM Calculations for Damping Estimation of Bladed Disk With Dry-Friction Contacts	Ludek Pesek
		idetc2020-22545	Experimental Investigations on Wake Propagation of Multi-Rotor Drones	Glen Throneberry
	CIE Artificial Intelligence and Machine Learning in Design and Manufacturing	idetc2020-22112	A Defect Prevention Concept Using Artificial Intelligence	Douglas Eddy
		idetc2020-22150	Machine Learning Aided Design and Optimization of Conformal Porous Structures	Zhenyang Gao
		idetc2020-22377	Design Science Meets Data Science: Curating Large Design Datasets for Engineered Artifacts	Satchit Ramnath
		idetc2020-22048	A Convolutional Neural Network-Based Patent Image Retrieval Method for Design Ideation	Shuo Jiang
		idetc2020-22487	Orthogonal Distance Fields Representation for Machine-Learning Based Manufacturability Analysis	Aditya Balu
	DEC 1-1 Implementation, Assessment and Research Methods Across the Curriculum	idetc2020-22754	A Methodological Framework for Making the Transition From Traditional Innovation Teaching Towards Serious Games	Yiming MA
		idetc2020-22376	Assessment of Conceptual Design Problems Comprising Design Rationale and Sketches	Lucienne Blessing
		idetc2020-22267	Quantification of Students' Learning Through Reflection on Doing Based on Text Similarity	Farrokh Mistree
		idetc2020-22250	Creativity and Engineering Education: Assessing the Impact of a Multidisciplinary Project Course on Engineering Students' Creativit	Saurabh Deo
		idetc2020-22788	Design Odyssey: A Co-Curricular Design Innovation and Entrepreneurship Program for Systemic Change in Design Education	Arianne Collopy
	MSNDC - 1.1 - Computational methods	idetc2020-22034	The Adjoint Gradient Method for Time-Optimal Control of a Moon Landing: Ascent, Descent, and Abort	Philipp Eichmeir
		idetc2020-22261	Explicit Time Integration of Multibody Systems Modelled With Three Rotation Parameters	Stefan Holzinger
		idetc2020-22529	Deep Learning of (Periodic) Minimal Coordinates for Multibody Simulations	Andrea Angeli
		idetc2020-22251	A Sliding-Mode Control Algorithm to Enhance In-Hand Motion Capabilities	Rajesh Kumar
		idetc2020-22517	Comparison of Parallel Elastic and Series Elastic Configurations of Vertical Spring Mass Model Controlled With Virtual Tuning of Dar	Sinan Sahin Candan
	DFMLC 2-1: Design for Sustainable Manufacturing	idetc2020-22239	A Practical Approach for Managing Uncertainty in Remanufacturing: Identifying Leverage Points Using Design Structure Matrix	Tomohiko Sakao
		idetc2020-22124	Milling Simulation-Based Method to Evaluate Manufacturability of Machine Parts	Masatomo Inui
		idetc2020-22253	Optimized Design and Performance Study of High Speed Five-Axis Machine Tools	Tzu-Chi Chan
		idetc2020-22483	Machine-Specific Energy Estimation Using the Unit Process Life Cycle Inventory (UPLCI) Model	Till Boettjer
		idetc2020-22429	Switching From Petroleum- to Bio-Based Plastics: Visualization Tools to Screen Sustainable Material Alternatives During the Design	Michael Saidani

	AVT-1/2-01: Vehicle Dynamics and Controls & Tire-Terrain Interaction	idetc2020-22763	Validation of a High-Fidelity Finite Element Tire Model on Pavement	Tamer Wasfy
		idetc2020-22141	A Test Rig for the Accurate Measurement of Bicycle Tyres Characteristics	Massimiliano Gobbi
		idetc2020-22750	Analysis of a Boom Equipped Utility Truck With Morphing Geometry for Safe Zone Operation Prediction	Parth Patel
		idetc2020-22713	Experimental Study on Lane Change Maneuvers With a Motorcycle	Horst Ecker
				Stefan Litschauer
		idetc2020-22726	Propulsion Dynamic Requirements Analysis for Multi-Axle Skid-Steer Wheeled Vehicles	Mostafa Yacoub
11:35am - 12:55pm	MR-1-2 Mechanisms Synthesis & Analysis	idetc2020-22217	An Optimization Method for the Static Balancing of Manipulators Using Springs	Jieyu Wang
		idetc2020-22196	Structure Synthesis of Multi-DOF Planar Metamorphic Mechanisms With a Single Driver	Qiang Yang
		idetc2020-22704	Constraint-Based Analysis of Parallel Kinematic Articulated Wrist Mechanisms	Revanth Damerla
		idetc2020-22426	A Cable-Driven Parallel Robot With Full-Circle End-Effector Rotations	Stephane Caro
		idetc2020-22473	Optimum Design of an Archery Twin Round-Wheel Compound Bow	Onur Denizhan
		idetc2020-22679	An Image-Based Approach to Variational Path Synthesis of Linkages	Anurag Purwar
	DTM Creativity and Ideation	idetc2020-22446	How Should We Measure Creativity in Design Studies? A Comparison of Social Science and Engineering Approaches	Scarlett Miller
		idetc2020-22038	Deconstruction of Idea Generation Methods Into a Framework of Creativity Mechanisms	Katja Hölttä-Otto
		idetc2020-22114	Influence of Conceptual Sketches on Variety, Typology, and Novelty of Elicited Requirements	Joshua Ortiz
		idetc2020-22557	Mirroring Neurostimulation Outcomes Through Behavioral Interventions to Improve Creative Performance	Alex Sahar
		idetc2020-22596	Dimensions of Similarity Used to Identify Products As Sources of Analogy	Arnold Tsoka
		idetc2020-22424	A Comparison of Vector and Network-Based Measures for Assessing Design Similarity	Ananya Nandy
		idetc2020-22703	Memory and Idea Generation Applied to Product Repurposing	Kamie Arabian
		idetc2020-22264	Brand Affiliation Through Curved and Angular Surfaces Using the Example of the Vehicle Front	Matthias Sebastian Fischer
	RSAFP Design with and Failure Analyses of Polymer, Composite, Additive Manufactured and Meta Materials	idetc2020-22463	A Computational Framework Enabling Comparative Analysis of Progressive Damage Models for Composite Materials	Nicole Apetre
		idetc2020-22194	Excimer Laser Treatment of Steel Fibers for Improved Adhesion to Silicone Rubber	Erol Sancaktar
		idetc2020-22435	Excimer Laser Treatment of Nylon Fibers for Improved Adhesion to Vulcanized Natural Rubber	Erol Sancaktar
		idetc2020-22361	3D-Printed Polymeric Metamaterial Recovery Behavior After Large Deformation	Erol Sancaktar
	VIB Conference 2	idetc2020-22652	Mistuning Identification for Rotating Bladed Disks Using Stationary Measurements and Reduced Order Models	Eric Kurstak
		idetc2020-22171	Design and Amplitude Dependence of Resonance Frequency of Origami-Inspired Vibration Isolators With Quasi-Zero-Stiffness Char	Kouya Yamaguchi
		idetc2020-22322	Strong Vibration Mitigation in High-Aspect-Ratio Wings Using a Nonlinear Energy Sink With Elliptic Clearance	Keegan Moore
		idetc2020-22540	Dynamics and Performance of a Vibratory-Based Actuation Mechanism for Hovering Air Vehicles	Glen Throneberry
		idetc2020-22282	Multi-Segmented Motion Limiting Constraint Responses and Uncertainty Quantification of Pipelines Conveying Fluid	Timothy Alvis
		idetc2020-22398	On the Nonlinear Mode-Coupling in Ultra Precision Manufacturing Machines: Experimental and Analytical Analyses	Mohammad Bukhari
	MNS-2, Dynamics of MEMS and NEMS	idetc2020-22050	Investigation of 3:1 Internal Resonance of Electrostatically Actuated Microbeams With Flexible Supports	Praveen Kumar
		idetc2020-22489	A New Multi-Modal Sensing Strategy Based on a Highly-Asymmetric and Weakly-Coupled Resonator System	Hanna Cho
		idetc2020-22229	Bio-MEMS Circular Plate Sensors Under Electrostatic Hard Excitations: Frequency Response of Superharmonic Resonance of Fourth	Dumitru Caruntu
	DEC 1-2 Implementation, Assessment and Research Methods Across the Curriculum	idetc2020-22477	Exploration of the Timing of Introduction of Design Heuristic Cards to Early Design Brainstorming Sessions by Interdisciplinary Stud	Jose Lugo
		idetc2020-22449	Fresh in My Mind! Investigating the Effects of the Order of Presenting Opportunistic and Restrictive Design for Additive Manufactu	Rohan Prabhu
		idetc2020-22099	Comparing Student and Sponsor Perceptions of Interdisciplinary Teams' Capstone Performance	Sandeep Krishnakumar
		idetc2020-22613	Quantifying Individuals' Theory-Based Knowledge Using Probabilistic Causal Graphs: A Bayesian Hierarchical Approach	Atharva Hans
	MSNDC - 1.2 - Computational methods	idetc2020-22189	A Novel Single-Step Unconditionally Stable Numerical Integration Scheme With Tunable Algorithmic Dissipation	Huimin Zhang
		idetc2020-22336	Dynmanto: A Matlab Toolbox for the Simulation and Analysis of Multibody Systems	Alexander Held
		idetc2020-22393	Building Block Based Topology Synthesis Algorithm to Optimize the Natural Frequency in Large Stroke Flexure Mechanisms	Ronald Aarts
		idetc2020-22702	Swarms of Aquatic Unmanned Surface Vehicles (USV), a Review From Simulation to Field Implementation	jamal ansary
		idetc2020-22479	Quasi-Velocity Approach Toward Normalization Constraint for Euler Parameters	Vatsal Joshi
	DFMLC 3-2: Lifecycle Impact Assessment in Product & Process Design	idetc2020-22237	Consideration of Social Impacts During the Early Stages of Product Development for Sustainable Design	Hong Jia
		idetc2020-22059	Injury Prevention by Design: Measuring Greenhouse Worker Social Sustainability for Redesigned Equipment	Abigail Clarke-Sather
		idetc2020-22526	Towards Prospective Sustainability Life Cycle Assessment	Abigail Clarke-Sather
	AVT-7/8-01: Intelligent and Military Vehicles	idetc2020-22287	A Model Predictive Control Strategy for Lateral and Longitudinal Dynamics in Autonomous Driving	Irfan Khan
		idetc2020-22311	Optimal Trajectory Generation Using an Improved Probabilistic Road Map Algorithm for Autonomous Driving	Stefano Feraco
		idetc2020-22339	A LIDAR-Based Clustering Technique for Obstacles and Lane Boundaries Detection in Assisted and Autonomous Driving	Stefano Feraco
		idetc2020-22418	Comfort-Oriented Design of Model Predictive Control in Assisted and Autonomous Driving	Angelo Bonfitto
		idetc2020-22222	Resistive Force Analysis for Design of Rubber Tire Loader Buckets	Atta Ur Rehman
	MR-4-1 Origami-Based Engineering Design	idetc2020-22187	Examine the Bending Stiffness of Generalized Kresling Modules for Robotic Manipulation	Suyi Li
		idetc2020-22017	Design and Analysis of a Programmable Rotational Element Utilizing Coupled Kresling Origami Modules	ZHEN LI
		idetc2020-22246	Hybrid Soft-Rigid Deployable Structure Inspired by Thick-Panel Origami	Chenying Liu
		idetc2020-22333	Comparison of Soft Curved Crease Surrogate Hinges	Yves Klett
		idetc2020-22088	Kinematics of the Morph Origami Pattern and its Hybrid States	Phanisri Pradeep Pratapa
		idetc2020-22221	Dynamic Modeling and Transient Analysis of a Deployable Miura-Origami Tube	Hongbin Fang
		idetc2020-22228	Bioinspired Origami: Case Studies Using a Keyword Search Algorithm	Elissa Morris

1:10pm - 2:30pm	DTM Prototyping, Design Representation, Engineering for Global Development, and Biologically Inspired Design	idetc2020-22700	A Pre-Prototyping Framework to Explore Human-Centered Prototyping Strategies During Early Design	Salman Ahmed
		idetc2020-22701	The Impact of Prototyping Strategies on Crowdfunding Success	Sriram Srinivasan
		idetc2020-22605	"You Cannot Test It Before It Is Verified. When It Is Verified You Cannot Change It": Prototyping Challenges in Industry	Camilla Arndt Hansen
		idetc2020-22523	Defining Function: How Student Definitions Compare to Literature to Function Model Generation	Apurva Patel
		idetc2020-22138	The Stakeholder Agreement Metric (SAM): Quantifying Preference Agreement Between Product Stakeholders	Jesse Austin-Breneman
		IDETC2020-22558	The Presence of Culture in Student Designer Perceptions When Making Design Requirements: A Pliot Study	Malena Agyemang
		idetc2020-22374	Extending the Use of Bio-Inspiration for Water Distribution Networks to Urban Settings	Astrid Layton
		idetc2020-22580	Fostering Function-Sharing Using Bioinspired Product Architecture	Devesh Bhasin
	DAC 11-1: Engineering for Global Development	idetc2020-22670	The Determination of a Cost Optimal Design for a Multiple Stage Continuous Electrodialysis Desalination Device for Use in Domesti	Hannah M. Varner
		idetc2020-22062	Assessing Global Needs When Identifying Potential Engineering for Global Development Projects	Christohper Mabey
		idetc2020-22063	Identifying High-Potential Work Areas in Engineering for Global Development: Linking Industry Sectors to the Human Development	Daniel Smith
		idetc2020-22065	Remote Data Collection Devices for Social Impact Indicators of Products in Developing Countries	Bryan Stringham
		idetc2020-22144	Developing Training Tools for Clinicians in LICs: Using Hidden Markov Modeling to Study the Decision-Making Strategies of Expert a	Pratima Saravanan
	DAC 18-1: Simulation-Based Design Under Uncertainty	idetc2020-22135	A Sequential Calibration and Validation Framework for Model Parameter Updating and Bias Correction	Chen Jiang
		idetc2020-22161	Uncertainty-Based Multidisciplinary Design Optimization for Feedback-Coupled Systems Under Both Parametric and Metamodeling	Zhao Liu
		idetc2020-22165	Reliability Analysis and Random Vibration of Nonlinear Systems Using the Adjoint Method and Projected Differentiation	Zissimos Mourelatos
		idetc2020-22030	A Practical Safety Factor Method for Reliability-Based Component Design	Jianhua Yin
		idetc2020-22369	Applications of Polynomial Chaos-Based Cokriging to Simulation-Based Analysis and Design Under Uncertainty	Jethro Nagawkar
	VIB Conference 3	idetc2020-22481	Analysis of High Fidelity Modeling of Drone Dynamics and Aerodynamics for Reduced Energy Consumption	Samantha Hoang
		idetc2020-22331	Numerical Bifurcation Analysis of a Piecewise-Smooth Nonlinear Oscillator System With Impacts	Brian Saunders
		idetc2020-22289	Experimental Forced Response Analysis of Two-Degree-of-Freedom Piecewise-Linear Systems With a Gap	Akira Saito
		idetc2020-22327	Experimental Demonstration of Non-Reciprocity in Nonlinear Rotational Oscillators	Lezheng Fang
		idetc2020-22592	Effects of Correlated Noise on the Performance of Persistence Based Dynamic State Detection Methods	Audun Myers`
		idetc2020-22042	A New Data-Driven System Identification Method for Local Attachments With Smooth and Non-Smooth Nonlinearities	Keegan Moore
	CIE Design, Simulation and Optimization for Additive Manufacturing	idetc2020-22047	An Initial Guess Free Method for Least Squares Parameter Estimation in Nonlinear Models	Guanglu Zhang
		idetc2020-22500	A Computational Framework for the Inverse Identification of Temperature-Dependent Dielectric Permittivity of Materials at Giga-H	Athanasios Iliopoulos
		idetc2020-22434	Inverse Identification of Non-Linear ODEs for the Dynamic Control of Material Testing Systems	Evelyn Lunasin
		idetc2020-22474	Multiscale Tomographic Wave-Matter Interaction Modeling to Enable Artifact-Free Material Defect Reconstruction	John Steuben
		idetc2020-22482	Measuring Dielectric Properties of Ceramic Powders at Microwave Frequencies for Material Processing Applications	Benjamin Graber
		idetc2020-22632	Investigating the Coupled Effects Between Rotor-Blade Aeroelasticity and Tip Vortex Stability	Steven Rodriguez
	MNS-3, Bio MEMS/NEMS	idetc2020-22185	Development of a MEMS Chemical Sensor for Detection of Phthalates in Juice Using Electrochemical Impedance Spectroscopy	Mohammad Shavezipur
		idetc2020-22391	316L Stainless Steel Sensitization in Carbon Nanotube CVD Growth for Bacterial Resistance	Sterling Voss
		idetc2020-22022	Non-Enzymatic and Electrodeless Detection of Direct Bilirubin Using Metal Enhanced Fluorescence Effect	Gou-Jen Wang
		idetc2020-22207	Investigation of the Effect of Native Oxide Layer on Performance of Interdigitated Impedance-Based Silicon Biochemical Sensors	Nadia Ebrahimpour Tolouei
	DEC 1-3 Implementation, Assessment and Research Methods Across the Curriculum	idetc2020-22773	Digitizing Dissection: A Case Study on Augmented Reality and Animation in Engineering Education	Scarlett Miller
		idetc2020-22027	Who, What, and When? Exploring Student Focus in the Capstone Design Experience	Zack Ball
		idetc2020-22054	Comparison of Exams and Design Practica for Assessment in First Year Engineering Design Courses	Hannah Nolte
	MSNDC - 1.3 - Computational methods	idetc2020-22230	Lyapunov Perron Transformation for Linear Quasi-Periodic Systems	Susheelkumar Subramanian
		idetc2020-22646	Recursive Newton-Euler Dynamics and Sensitivity Analysis for Robot Manipulator With Revolute Joints	Shuvrodeb Barman
		idetc2020-22379	Arresting Motion in Nonlinear Systems Using Two-Scale Command Shaping	Michael Leamy
		IDETC2020-22803	Synchrono: A Scalable, Physics-Based Simulation Platform for Testing Groups of Autonomous Vehicles And/or Robots	Jay Taves
	DFMLC 3-1: Design-Based Decision Making	idetc2020-22093	A Literature Review of Design Decision Making in Disruptive Technological Innovations of New Products	Mikhail Yurievich Nikolaev
		idetc2020-22292	A Decision-Making Approach for Procuring Custom-Made Machineries and Components	Marco Mandolini
		idetc2020-22454	Mission-Level Optimization: Complex Systems Design for Highly Stochastic Life Cycle Use Case Scenarios	Brian Chell
		idetc2020-22559	Design for Flexibility: A Graph Coloring Technique to Study Design Changes in the Tethered Economy World	Sara Behdad
	AVT-4-01: Vehicle Safety and Ergonomics	idetc2020-22556	Injury Risk Assessments Determined by Vehicle-Based and Dummy-Based Criteria During a Car–to-End Terminal Crash Using Finite	Costin Untaroiu
		idetc2020-22240	A Study on the Risk of Drivers' Upper Extremity Due to the Lkas Intervention	Junghwa Hong
		idetc2020-22492	The Influence of Gait Stance and Vehicle Type on Pedestrian Kinematics and Injury Risk	Federico Maria Ballo
		IDETC2020-22762	Finite Element Reconstruction of Vehicle Rear Seats With Adult Anthropomorphic Test Dummies (Atd) to Investigate Injury Risk	Costin Untaroiu
		idetc2020-22142	Numerical Modelling of the Biaxial Fatigue Test of Aluminium Wheels	Massimiliano Gobbi
	MR-4-2 Origami-Based Engineering Design	idetc2020-22354	Triple-Cell Origami Structure for Multistable Transition Sequences	Zuolin Liu
		idetc2020-22412	Generative Design of Origami-Inspired Mechanisms With a Variational Level Set Approach	Shikui Chen
		idetc2020-22544	Limits of Extramobile and Intramobile Motion of Cylindrical Developable Mechanisms	Jared Butler
		idetc2020-22551	Deployable Convex Generalized Cylindrical Surfaces Using Torsional Joints	Todd Nelson
		idetc2020-22733	Design Elements Inflatable Origami-Based Forceps	Dina Joy Abulon
		idetc2020-22757	Increasing the Life Span of Foldable Manipulators With Fabric	Mohammad Sharifzadeh

2:45pm - 4:05pm	DTM Design of Complex Systems & Big Data	idetc2020-22108	Detecting and Characterizing Archetypes of Unintended Consequences in Engineered Systems	Hannah Walsh
		idetc2020-22095	Systems of Systems Engineering to Improve Resilience: A Case Study Comparison of Biologically Inspired and Traditional Approache	Bryan Watson
		idetc2020-22394	An Unsupervised Deep Learning Model to Discover Visual Similarity Between Sketches for Visual Analogy Support	Zijian Zhang
		idetc2020-22785	Risk Dominance as a Decision Criterion in Collective Systems Design	Paul Grogan
		idetc2020-22787	Structured to Succeed? Strategy Dynamics in Engineering Systems Design and Their Effect on Collective Performance	Ambrosio Valencia-Romero
		idetc2020-22797	Part-Aware Product Design Using Deep Generative Network	Xingang Li
		idetc2020-22796	Machine Learning, Frequency Analysis and Markov Chain Model for Analyzing Product Repair and Maintenance Service Decisions	Hao Yu Liao
		idetc2020-22464	Motivating Sustainable Behavior Using Cognitive Interventions in Product Design	Jana Saadi
	DAC 2-1: Artificial Intelligence and Machine Learning	idetc2020-22381	Extrapolation With Gaussian Random Processes and Evolutionary Programming	Ramin Bostanabad
		idetc2020-22355	Graph Representation of 3D CAD Models for Machining Feature Recognition With Deep Learning	Weijuan Cao
		idetc2020-22399	Generative Adversarial Networks With Synthetic Training Data for Enforcing Manufacturing Constraints on Topology Optimization	Michael Greminger
		idetc2020-22204	Semi-Supervised Deep Learning for High-Dimensional Uncertainty Quantification	Mingyang Li
	DAC 8-1: Design for Resilience and Failure Recovery	idetc2020-22019	Reliability-Based Reinforcement Learning Under Uncertainty	Zequn Wang
		idetc2020-22203	Designing Deep Transfer Networks for Bearing Fault Diagnosis With Heterogeneous Data Fusion	Yunsheng Su
		idetc2020-22153	Stochastic Stackelberg Games for Agent-Driven Robust Design	Sean Rismiller
		idetc2020-22226	Risk-Averse Optimization for Resilience Enhancement Under Uncertainty	Jiaxin Wu
		idetc2020-22154	Temporal Fault Injection Considerations in Resilience Quantification	Daniel Hulse
		idetc2020-22680	Expected Uncertainty Reduction for Sequential Kriging-Based Reliability Analysis	Meng Li
	VIB Conference 4	idetc2020-22441	Dynamic State Analysis of a Driven Magnetic Pendulum Using Ordinal Partition Networks and Topological Data Analysis	Audun Myers
		idetc2020-22056	Reduced-Order Modeling of Loosening Mechanics in Axially Oriented Threaded Joints	Keegan Moore
		idetc2020-22417	Substructure Interface Reduction Techniques to Capture Nonlinearities in Bolted Structures	Aabhas Singh
		idetc2020-22439	Some Exploration of the Path-Dependence in the Contact Analysis	Gaurav Chauda
		idetc2020-22279	Damage Identification Using Static and Dynamic Responses Based on Topology Optimization and Lasso Regularization	Ryo Sugai
		idetc2020-22286	Natural Frequency Based Topology Optimization of an Aircraft Engine Support Frame	Braden Warwick
	CIE Design, Simulation and Optimization for Additive Manufacturing	idetc2020-22530	Statistical Analysis of Tensile Tests Performed on 316L Specimens Manufactured by Directed Energy Deposition	Athanasios Iliopoulos
		idetc2020-22583	Simulation of Hyper-Elasticity by Shape Estimation	Christopher-Denny Matte
		idetc2020-22478	Measured Data Alignments for Monitoring Metal Additive Manufacturing Processes Using Laser Powder Bed Fusion Methods	Shaw Feng
		idetc2020-22615	Hybrid Modeling Approach for Melt Pool Prediction in Laser Powder Bed Fusion Additive Manufacturing	Tesfaye Moges
		idetc2020-22542	The Material Testing of Nanoparticle Doped 3D Printed ABS Strain Gages forResisitance and Stiffness	Cameron Turner
		idetc2020-22451	Simulation Informed Effects of Solidification Rate on 316L Single Tracks Produced by Selective Laser Melting	Anna Rawlings
	MNS-4, Micro/Nano Robotics and Manufacturing	idetc2020-22415	Experimental Investigation of Microfluidic Feature Manufacturing by Digital Light Processing Stereolithography	Irene Fassi
		idetc2020-22476	Rapid Fabrication of POM Flexure Hinges via a Combined Injection Molding and Stereolithography Approach	Marcello Valori
		idetc2020-22061	Kinematic Design of Functional Nanoscale Mechanisms From Molecular Primitives	Meysam Chorsi
	DEC 1-4 Implementation, Assessment and Research Methods Across the Curriculum	idetc2020-22623	Does It Translate? A Case Study of Conceptual Design Outcomes With U.S. and Moroccan Students	Aoran Peng
		idetc2020-22403	Exploratory Assessment of Design Entrepreneurial Program New Venture Design Experience to Prune Program Activities	Jose Lugo
		idetc2020-22687	Broadening Participation: Over Ten Years of Outreach Within the IDETC-DED Community	Charlotte De Vries
		idetc2020-22139	Roughing It: Evaluating a Novel Experiential Design Course on Resiliency, Self-Leadership, and Engineering Design Self-Efficacy	Sandeep Krishnakumar Jessica Dolores Menold
		idetc2020-22459	An Initial Analysis of Undergraduate Student Mental Models of Product Design	Steven Hoffenson
	DFMLC 5-1: Design for Manufacturing and Assembly	idetc2020-22710	Reliability-Informed Life-Cycle Warranty Cost Analysis: A Case Study on a Transmission in Agricultural Equipment	Meng Li
		idetc2020-22677	A Life Cycle Analysis of Laser Cutter Embodied Impacts	George Moore
		idetc2020-22324	Investigating Cyber-Physical Threats of Numerically Controlled Manufacturing Processes	Joseph Piacenza
		idetc2020-22102	Individual Differences in Describing Levels of Automation	Joshua Summers
		idetc2020-22183	Alignment of a Collaborative Resistance Model With a Change Management Process in Industry: A Case Study on Production Autor	Joshua Summers
	AVT-5/6-01: Powertrain and Light Vehicles Design	idetc2020-22383	Real-Time Applicable Power Management of Multi-Source Fuel Cell Vehicles Using Situation-Based Model Predictive Control	Dirk Söffker
		idetc2020-22431	Fuzzy Logic vs Equivalent Consumption Minimization Strategy for Energy Management in P2 Hybrid Electric Vehicles	Angelo Bonfitto
		idetc2020-22366	Energy Savings From Electrification of Cooling System	Ethelbert Ezemobi
		idetc2020-22303	Architecture Selection for Hybrid Electric Mobility As a Service Vehicle	Noah Schaich
		idetc2020-22635	A Narrow-Track Tilting Tricycle With Variable Stability That the Rider Can Control Manually	Andrew Dressel
	MR-1-3 Mechanism Synthesis and Analysis	idetc2020-22502	Analysis of Planar Multilink Cable Driven Robots Using Internal Routing Scheme	Dimiter Zlatanov
		idetc2020-22666	Evaluating Plane Curves As Constraints for Locomotion on Uneven Terrain	Chang Liu
		idetc2020-22718	Unified Motion Synthesis of Spatial Seven-Bar Platform Mechanismsand Planar-Four Bar Mechanisms	Shashank Sharma
		idetc2020-22731	Path Synthesis of Defect-Free Spatial 5-SS Mechanisms Using Machine Learning	Shashank Sharma
	DTM Design Decision-Making	idetc2020-22004	Toward a Theory of Systems Engineering	George Hazelrigg
		idetc2020-22163	Novice Designers' Approaches to Justifying User Requirements and Engineering Specifications	Robert P. Loweth
		idetc2020-22254	Sequential Design Decision Making Under the Influence of Competition: A Protocol Analysis	Murtuza Shergadwala
		idetc2020-22626	Early-Stage Uncertainty: Effects of Robust Convex Optimization on Design Exploration	Priya Pillai
		idetc2020-22633	Measuring Human Learning in Design Space Exploration to AssessEffectiveness of Knowledge Discovery Tools	Hyunseung Bang
		idetc2020-22669	Method Selection in Human-Centered Design Teams: An Examination of Decision-Making Strategies	Vivek Rao

4:20pm - 5:20pm	DAC 9-1: Design of Complex Systems	idetc2020-22631	Towards Engineering Complex Socio-Technical Systems Using Network Motifs:A Case Study on Bike-Sharing Systems	Yinshuang Xiao
		idetc2020-22599	Structural Design Exploration for Product Architecture Design	Masato Toi
		idetc2020-22774	Enhancements to the Perfect Matching Approach for Graph Enumeration-Based Engineering Challenges	Daniel Herber
		idetc2020-22649	Design Space Analysis Method for Support of System Design Under the Consideration of Uncertainties in the Early Design Stage	Kazuhiro Aoyama
	DAC 14-1: Metamodel-Based Design Optimization	idetc2020-22113	Efficient Parametric Optimization for Expensive Single Objective Problems	Jonathan Weaver-Rosen
		idetc2020-22116	An Approach to Bayesian Optimization for Design Feasibility Check on Discontinuous Black-Box Functions	Arpan Biswas
		idetc2020-22212	A Set Based Design Method Using Bayesian Active Learning	Kohei Shintani
		idetc2020-22651	Bayesian Optimization for Simulation-Based Design of Multi-Model Systems	Anton Van Beek
	CIE Computer-Aided Product and Process Development	idetc2020-22444	Design, Development and Characterization of a Wrap Spring Clutch/Brake Mechanism As a Knee Joint for an Assistive Exoskeleton	Vishnu Aishwaryan Subra Mani
		idetc2020-22611	A Vocabulary of Function Features for Computer Aided Modeling of Thermal-Fluid Systems	Lakshmi Venkatanarasimhan
		idetc2020-22630	A Formal Representation of Conjugate Verbs in Function Modeling	Ahmed Chowdhury
	MNS-7, MEMS/NEMS Neural and Digital Computing MNS-8, Flexible MEMS/NEMS	idetc2020-22721	Design and Simulations of a Novel Stiction-Free Laterally Actuated NEM Relay With Flexible Source-Drain Contact	Mehrdad Zandigohar
		idetc2020-22671	Nonlinear Time-Series Prediction Using a Single MEMS Reservoir	Mohammad H Hasan
		idetc2020-22594	Multi-Inputs/Outputs and Cascadable MEMS Resonator-Based Computing Devices	Sherif Tella
		idetc2020-22665	Machine Learning Augmentation in Micro-Sensor Assemblies	Mohammad H Hasan
	DEC 1-5 Implementation, Assessment and Research Methods Across the Curriculum	idetc2020-22589	Best Fits and Dark Horses: Can Design Teams Tell the Difference?	Daniel Henderson
		idetc2020-22614	Pilot Study: Investigating EEG Based Neuro-Responses of Engineers via a Modified Alternative Uses Task to Understand Creativity	Zahed Siddique
		idetc2020-22577	Towards an Understanding of Semantic Memory During Idea Generation	Attakias Mertens
		idetc2020-22667	Dichotomy of Design Experience: A Case Study of One Student's Experience With Problem Typology and His Perceptions of Design	Andrew Olewnik
	MSNDC - 8.1 - Optimization	idetc2020-22410	Continuous vs Discrete Adjoint Method for Model Parameter Sensitivity of Multibody Systems Using Fncf	Simon Vanpaemel
		idetc2020-22090	Direct Sensitivity Analysis of Multibody Systems Modeled With Relative Coordinates Using an Augmented Lagrangian Formulation	Álvaro López Varela
		idetc2020-22241	Invariant Manifolds in Human Joint Angle Analysis During Walking Gait	Sandesh G. Bhat
	AVT-6-01: Light Vehicle Design	idetc2020-22058	Identification of Rider's Arms Dynamic Response and Effects on Bicycle Stability	Alberto Doria
		idetc2020-22290	Advanced Vehicle Dynamics Through Active Aerodynamics and Active Body Control	Lorenzo Sisca
		idetc2020-22306	Dynamic Performance Comparison Between In-Wheel and On-Board Motor Battery Electric Vehicles	Lorenzo Sisca
Day 2 August 18th (Times in US EDT)				
10:00am - 11:20am	MR-6-1 Medial and Rehabilitation Robotics	idetc2020-22471	Design and Analysis of a Wire-Driven Multifunctional Robot for Single Incision Laparoscopic Surgery	A M Masum Bulbul Chowdhury
		idetc2020-22319	Design of a Miniaturized Actuation System for Robotic Lumbar Discectomy Tools	Benjamin Varughese Johnson
		idetc2020-22521	Reconstruction of Ground Reaction Force Data Using Lyapunov Floquet Theory and Invariant Manifold Theory	Sandesh G. Bhat
		idetc2020-22442	Optimization of the Compliant Drive Mechanism for a Prosthetic Ankle	Tyler Morrison
		idetc2020-22168	Design of Single-DOF Immersive Upper Limb Rehabilitation System via Kinematic Mapping and Virtual Reality	Ping Zhao
		idetc2020-22742	Design of a Novel Variable Stiffness Active Ankle Foot Orthosis Using Permanent Magnets for Drop Foot Assistance	Abhinaba Basu
	DTM Entrepreneurship & Teams in Design	idetc2020-22736	Analysis of Virtual Communication Within Engineering Design Teams and its Impact on Team Effectiveness	Lauren Adolphe
		idetc2020-22432	Can Design Teams Be Empathically Creative? A Simulation-Based Investigation on the Role of Team Empathy on Concept Generatio	Mohammad Alsager Alzayed
		idetc2020-22585	How Engineering Design Students' Psychological Safety Impacts Team Concept Generation and Screening Practices	Courtney Cole
		idetc2020-22811	Community Growth Model in Different Profit-Seeking Contexts – a Comparative Case Study of Reprap and Ultimaker	Zhuoxuan Li
		idetc2020-22730	Paired Computer-Aided Design: The Effect of Collaboration Mode on Differences in Model Quality	Hamza Arshad
		idetc2020-22515	Back and Forth: Using Conversation Analysis to Explore Dialogues of Sharedness of Mental Models	Sue Yi
		idetc2020-22152	Only As Strong As the Strongest Link: The Impact of Individual Team MemberProficiency in Configuration Design	Ethan Brownell
		idetc2020-22186	A Topic Modeling Approach to Study the Impact of Manager Interventions on Design Team Cognition	Joshua Gyory
	DAC 20-1: Computational Design for Biomedical Applications	idetc2020-22706	Design and Optimization of Functionally Graded Superelastic NiTi Stents	Jivtesh Khurana
		idetc2020-22044	Metamaterial Design for Targeted Limb-Socket Interface Pressure Offloading in Transtibial Amputees	Nathan Brown
		idetc2020-22450	Computational Design Generation and Evaluation of Beam-Based Tetragonal Bravais Lattice Structures for Tissue Engineering	Amit Arefin
		idetc2020-22696	Multi-Objective Design Exploration of a Canine Ventriculoperitoneal Shunt for Hydrocephalus	Ryan Yingling
	DAC 18-2: Simulation-Based Design Under Uncertainty	idetc2020-22155	An Efficient Multi-Objective Robust Optimization Method by Sequentially Searching From Nominal Pareto Solutions	Mian Li
		idetc2020-22201	Mission Mobility Reliability Analysis of Off-Road Ground Vehicles	Yixuan Liu
		idetc2020-22146	Sequential Sampling Based Reliability Analysis for High Dimensional Rare Events With Confidence Intervals	Yanwen Xu
		idetc2020-22629	Scalable Objective-Driven Batch Sampling in Simulation-Based Design for Models With Heteroscedastic Noise	Anton Van Beek
		idetc2020-22609	Off-Road Vehicle Path Planning Using Geodesics on a Multifactor Terrain Model	Dakota Barthlow
		idetc2020-22006	LSTM-Based Ensemble Learning for Time-Dependent Reliability Analysis	Mingyang Li
	VIB Conference 5	idetc2020-22314	Experimental Modal Analysis of Business Jet Fuselage Tail Section Sub-Assemblies	Ian Donaldson
		idetc2020-22317	Computational Modal Analysis of Half Scale Generic Business Jet Substructures	Christopher Lam
		idetc2020-22117	Design and Laboratory Validation of a Force-Amplified Piezoelectric Energy Harvesting Unit	Cheng Chen
		idetc2020-22751	Extracting Maximum Power in the Presence of Internal Inductance of Electromagnetic Energy Harvesting Systems	YAMINI SHARMA
		idetc2020-22200	Broadband and Enhanced Energy Harvesting Using Inerter Pendulum Vibration Absorber	Aakash Gupta
	MNS-5, Functional Materials and Surface Engineering	idetc2020-22158	Two-Phase Thermal Metamaterial	Longqiu Li
		idetc2020-22274	Unidirectional Acoustic Parametric Amplification in Space-Time Modulated Membrane System	Longqiu Li
	DFMLC 6-1: Design for Additive Manufacturing	idetc2020-22295	A Study on the Machine Learning Framework for the Geometric Modelling of Wire Arc Bead Profile	Xi Yu Oh
		idetc2020-22342	Temperature Control to Increase Inter-Layer Bonding Strength in Fused Deposition Modelling	Qing Wang
		idetc2020-22535	Additive Manufacturing Adaptiveness Analysis Using Fuzzy Bayesian Network	Junfeng Ma
		idetc2020-22771	Investigation of Printing Parameters of Additive Manufacturing Process for Sustainability Using Design of Experiments	Marwan Khalid
		idetc2020-22462	Design and Manufacturing of 3D Printed Foods With User Validation	Stefania Chirico Scheele

11:35am - 12:55pm	MR-6-2 and MR-7-1 Medical, Rehabilitation, and Other Novel Mechanisms & Robots	idetc2020-22111	Mechanical Redesign of a Transtibial Prosthesis With Active and Passive Components and a Four-Bar Mechanism	Philip Voglewede
		idetc2020-22121	Design a Four-Bar Linkage for Upper Limb Muscle Rehabilitation Exercise: A Simulation Study	Joel Quarnstrom
		idetc2020-22573	Design of an Ankle Rehab Robot With a Compliant Parallel Kinematic Mechanism	Nishant Jalgaonkar
		idetc2020-22249	Characterisation, Design and Experimentation of a Fabric Based Wearable Joint Sensing Device	Jun Liang Lau
		idetc2020-22437	Novel Design of a 3D Printed Anthropomorphic Soft Prosthetic Hand	Amanda De Oliveira Barros
		idetc2020-22028	Approximation of the Step-to-Step Dynamics Enables Computationally Efficient and Fast Optimal Control of Legged Robots	Pranav Bhounsule
		IDETC2020-22510	Zero Moment Control for Lead-Through Teach Programming on a Collaborative Robot	Stephen Canfield
	DTM New & Emerging Trends in Design	idetc2020-22466	Investigating the Challenges of Crowdsourcing for Engineering Design: An Interview Study With Organizations of Different Sizes	Murtuza Shergadwala
		idetc2020-22601	Creating a Design for Inspectability Framework: Investigating DfAM Heuristics for Inspection Technologies	Tobias Mahan
		idetc2020-22555	Analyzing the Characteristics of Cognitive-Assistant-Facilitated Ideation Groups	Torsten Maier
		idetc2020-22106	Framework for the Evolution of Heuristics in Advanced Manufacturing	Kenton Fillingim
		idetc2020-22516	The User Experience of Research Presentations: Leveraging the Design Process as a Framework for Constructing User-Centered Sol	Johnathon Strube Elizabeth Starkey Christine Toh
		idetc2020-22698	Revisiting the Suitability of Conceptual Design With Computer-Aided Design Tools With a Generational Lens	Arash Nourimand
		idetc2020-22790	Knowing the Unknowable: Understanding and Measuring Design Impact Across Disciplines and Scale	Arianne X. Collopy
		idetc2020-22789	Design Innovation in Complex Systems Design: Integrating Design Thinking and Systems Thinking	Arianne X. Collopy
	DAC 14-2: Metamodel-Based Design Optimization	idetc2020-22433	Surrogate Model Assisted Lithium-Ion Battery Co-Design for Fast Charging and Cycle Life Performances	Pingfeng Wang
		idetc2020-22532	Stochastic Kriging for Crashworthiness Optimization Accounting for Simulation Noise	Seyed Saeed Ahmadisoleymani
		idetc2020-22747	Metamodel Based Forward and Inverse Design for Passive Vibration Suppression	Amir Behjat
		idetc2020-22256	Comparing Attribute- and Form-Based Machine Learning Techniques for Component Prediction	Glen Williams
	DAC 7-1: Design for Market Systems	IDETC2020-22658	Global Product Design Platforming: A Comparison of Two Methods to Find Equilibrium Solutions	Sarah Case
		IDETC2020-22591	A Weighted Network Modeling Approach for Analyzing Product Competition	Yaxin Cui
		IDETC2020-22499	A Consumer Dissatisfaction Model Linking Dynamic Pricing With Shifted Product-Use in Residential Electricity Markets	Scott Ferguson
		idetc2020-22248	Forecasting the Value of Excess in Personal Gaming Desktops	Scott Ferguson
		idetc2020-22619	Utility Function Derived Off-Road Vehicle Path Planning	Vijitashwa Pandey
	VIB Conference 6	idetc2020-22003	Investigation of a Novel Tri-Stable Cantilever Beam With Two Magnets	Shuai-Ling Sun
		idetc2020-22561	Discontinuous Dynamics of a Frequency Up-Conversion Piezoelectric Harvester With an Impact Controlling Mechanism	Saeed Onsorynezhad
		idetc2020-22145	Electromechanical Diode: Acoustic Non-Reciprocity in Weakly Nonlinear Metamaterial With Electromechanical Resonators	Mohammad Bukhari
		idetc2020-22522	Numerical Investigation of Multi-Mode Guided Wave Focusing in Pipe–Like Structures Using Gradient Index Metamaterial Lens Des	Hrishikesh G. Danawe
		IDETC2020-22349	A Novel Bi-Stable Piezoelectric Energy Harvester Inspired by the Venus Flytrap	Feng Qian
	MNS-6, MEMS Sensors and Actuators	idetc2020-22210	Linearization of Characteristic Response of a Capacitive MEMS Pressure Sensor by Patterning the Dielectric Layer	Nadia Ebrahimpour Tolouei
		idetc2020-22604	Organic Piezoresistive Pressure Sensitive Robotic Skin for Physical Human-Robot Interaction	Danming Wei
		idetc2020-22378	Novel Design of Piezoelectric Sensing and Energy Harvesting Mems/nems Gyroscopes	Manuel Serrano
		idetc2020-22586	2:1 MUX and OR Logic Functions Using Triple Partial Electrodes: Toward Cascadable MEMS Logic Devices	Sherif Tella
		idetc2020-22497	Improving Linearity of Circular Capacitive Pressure Sensor by Using a Dimple Mask	Md Ebrahim Khalil Bhuiyan
	MSNDC 2.1 - Flexible multibody systems	idetc2020-22255	Compliant Interface in Component Mode Synthesis	Pierangelo Masarati
		idetc2020-22293	Consistent and Inertia-Shape-Integral-Free Invariants of the Floating Frame of Reference Formulation	Johannes Gerstmayr
		idetc2020-22494	Variational Principles for Non-Material Systems Within an Arbitrary Lagrangian Eulerian Description of Motion	Giuseppe Pennisi
		idetc2020-22134	Finite Element Models for Flexible Cosserat Solids	Minghe Shan
		idetc2020-22242	A Non-Prismatic Beam Element for the Optimization of Flexure Mechanisms	Koen Dwarshuis
		idetc2020-22514	Influence of Boundary Conditions on Full-Scale Offshore Wind Turbine Nacelle Testing	Kirk Heinold
	DFMLC 12 Special Session: Design Tool Showcase	idetc2020-22315	Integrating Mtconnect and Indoorgml for Asset Monitoring and Indoor Navigation	Teodor Vernica
		idetc2020-22436	New Visualization Tools for Designers to Identify Bio-Based Plastic Substitutes Considering Carbon Footprint and Key Material Prop	Michael Saidani
		idetc2020-22798	Design Tool for Predicting Printability and Nutrition of Novel Food Inks Using Rheological Property Measurements	Paul Egan
		idetc2020-22782	Immersive Virtual Reality Technology Based Safety Training Approach for Precast/ Prestressed Concrete Industry	Junfeng Ma
		idetc2020-22793	Using Text Visualization to Aid the Analysis of Machine Maintenance Logs	Xiaoyu Zhang
	AVT-6-02 & AVT-7-01: Light Vehicle and Military Vehicle Design	idetc2020-22298	Active Aerodynamics Through Active Body Control: Modelling and Static Simulator Validation	Lorenzo Sisca
		idetc2020-22752	Influence of the Chainring Geometry on the Critical Power of Recreational Cyclists	Orlando Acevedo
		idetc2020-22323	Lightweight Design of a Multi-Material Suspension Lower Control Arm	Lorenzo Sisca
		idetc2020-22727	Design of an Onboard Directional Anemometer for Bicycles	Valentina Hurtado
		idetc2020-22244	Innovative Chassis Made From EPP and CFRP of an Urban-Concept Vehicle	Federico Maria Ballo
	MR-8-1 Novel Mechanisms, Robots, and Applications	idetc2020-22606	Development of a Robotic Landing System for UAVs Applied in Various Terrains	Chengyang Peng
		idetc2020-22705	Design of Tensegrity-Based Lattices With Engineered Load-Bearing and Thermal Expansion Properties	Edwin Peraza Hernandez
		idetc2020-22656	Design Exploration of a Tensegrity-Based Twisting Wing	Weilin Guan
		idetc2020-22683	Design Framework for Multi-Section Shape Memory Alloy Axial Actuators Considering Material and Geometric Uncertainties	Nguyen Kim Pham
		idetc2020-22650	Design and Modeling of a Variable Stiffness Barrel Mechanism for Ankle Exoskeleton	Dongming Gan
		idetc2020-22031	The Design of Disk Cam Mechanisms With a Translating Follower Having an Added Dual-Roller Intermediate Link	Kuan-Lun Hsu
		idetc2020-22076	The Stability and Stiffness Analysis of a Dual-Triangle Planar Rotation Mechanism	Damien Chablat
	DAC 3-1: Data-Driven Design	idetc2020-22346	Optimizing an Algorithm for Data Mining a Design Repository to Automate Functional Modeling	Alex Mikes
		idetc2020-22495	A Weighted Confidence Metric to Improve Automated Functional Modeling	Katherine Edmonds
		idetc2020-22382	Importance-Performance Analysis of Product Attributes Using Explainable Deep Neural Network From Online Reviews	Junegak Joung
		idetc2020-22681	METASET: An Automated Data Selection Method for Scalable Data-Driven Design of Metamaterials	Yu-Chin Chan
		idetc2020-22498	Using Decision Trees Supported by Data Mining to Improve Function-Based Design	Vincenzo Ferrero
		idetc2020-22642	Improving the Accuracy and Diversity of Feature Extraction From Online Reviews Using Keyword Embedding and Two Clustering M	Seyoung Park

1:10pm - 2:30pm	DAC 10-1: Design of Engineering Materials and Structures	idetc2020-22082	Quantification of Uncertainties Distributed in Network-Like Systems	Zihan Wang
		idetc2020-22235	Computational Design of Compositionally Graded Alloys for Property Monotonicity	Tanner Kirk
		idetc2020-22103	Topology Optimization for Stiffened Panels: A Ground Structure Method	Jean-François Gamache
		idetc2020-22107	Network Redundancy: A Key Design Factor for Cooling Networks	Reza Pejman
				Ahmad Najafi
		idetc2020-22132	Large Scale Topology Optimization of 3D Static Mixers	Sicheng Sun
		idetc2020-22608	Bayesian Optimization of Target Buckling Shapes in Constrainted Elastomeric Beams With Geometric Uncertainty	Nathan Hertlein
	VIB Conference 7	idetc2020-22645	Elastic Metasurfaces for Low-Frequency Flexural Wavefront Control	Zhenkun Lin
		idetc2020-22078	Anechoic Stubs As a Means for Damping Frame Vibrations: Analysis Using an Exact Wave-Based Approach	Michael Leamy
		idetc2020-22130	Superharmonic Resonance of Third Order of Electrostatically Actuated MEMS Circular Plates: Effect of AC Frequency on Voltage Re	Dumitru Caruntu
		idetc2020-22560	Free Vibration of Bistable Clamped-Clamped Beams: A Preliminary Study	Xiaolei Song
		IDETC2020-22457	Response Characteristics of Systems With Parametric Excitation Through Damping and Stiffness	Fatemeh Afzali
	CIE Human Modeling-Methods and Applications in Engineering	idetc2020-22616	Comparing Segmentation Approaches for Learning-Aware Wireframe Generation on Human Model	Jida Huang
		idetc2020-22485	Knee Prostheses Reverse Engineering: A Preliminary Investigation	Marco Rossoni
		idetc2020-22312	On Supporting the Learning of Biomechanics Using Multidisciplinary Physical Prototyping	Sofiane Achiche
		idetc2020-22723	Kinesthetic Perceptual Symmetry in Bi-Manual Interactions: An Exploratory Study	Ronak Mohanty
	CIE Artificial Intelligence and Machine Learning in Design and Manufacturing	idetc2020-22151	Automated Heuristic Induction From Human Design Data	Lucas Puentes
		idetc2020-22335	Automated Classification of Components for Manufacturing Planning: Single-View Convolutional Neural Network for Global Shape	Andrew Barclay
		idetc2020-22647	Structural Design Synthesis Through a Sequential Decision Process	Maximilian Ororbia
		idetc2020-22662	3D Build Melt Pool Predictive Modeling for Powder Bed Fusion Additive Manufacturing	Zhuo Yang
		idetc2020-22356	A Framework for a Motorcycle Design Computer-Based Intelligent Tool	Sean Agius
	MSNDC - 1.6 - Computational methods	idetc2020-22265	Detachment Waves and Associated Mechanics of a Belt Drive Incorporating Tensile Cords	Yingdan Wu
		idetc2020-22258	Smooth/Non-Smooth Multibody Co-Simulation of a Particle Damper	Runsen Zhang
		idetc2020-22325	A Comparison of Henon-Inspired Runge-Kutta and Harmonic Balance Methods for Capturing Chaotic Behavior in a Forced Duffing O	Brian Saunders
		idetc2020-22562	A 3d Friction Model for Slide, Roll and Spin Loads	Luning Fang
		idetc2020-22060	Use of Energy Indicators in the Explicit Co-Simulation of Multibody Systems	Francisco González
	MSNDC 3.1 - Vehicles and control	idetc2020-22064	Jordan Forms in Vehicle Dynamics	Bruce Minaker
		idetc2020-22195	Multiscale Off-Road Mobility Simulation With Computational Load Balancing for Lower-Scale Discrete-Element Models	Guanchu Chen
		idetc2020-22461	Numerical and Experimental Bifurcation Analysis of Trailers	Hanna Zsofia Horvath
		idetc2020-22033	Modified Model-Free Adaptive Predictive Control Applied to Vibration Reduction of Mechanical Flexible Systems	Dirk Söffker
		idetc2020-22358	Adaptive Neural Network Based Predictive Control of Nonlinear Systems With Slow Dynamics	Dirk Söffker
	DFMLC 9-1: Design for Smart & Sustainable Communities & DFMLC 4-1: Design for Supply Chains & End-Of-Life Recovery	idetc2020-22553	A Blockchain-Based Traceability System for Waste Management in Smart Cities	Sara Behdad
		idetc2020-22321	Design and Development of Hardware to Analyze and Categorize the Condition of Batteries With the Aim of Enabling Their Re-Use	Qing Wang
		idetc2020-22368	Bi-Level Optimization for Electricity Transaction in Smart Community With Modular Pump Hydro Storage	Yang Chen
		idetc2020-22699	Evaluating Supply Chain Resource Limits From News Articles and Earnings Call Transcripts: An Application of Integrated Factor Anal	Chih-Yuan Chu
2:45pm - 4:05pm	MR-8-2 Novel Mechanisms, Robots, and Applications	idetc2020-22035	A Continuously Tunable Stiffness Arm With Cable-Driven Mechanisms for Safe Physical Human-Robot Interaction	Yu She
		idetc2020-22052	Eight-Cable Robocrane Extension for NASA JSC ARGOS	Robert Williams
		idetc2020-22053	Cable-Suspended Robot for Algae Harvesting	Robert Williams
		idetc2020-22179	A Novel Gripping System for Delivery of Packages via Unmanned Aerial Vehicles	Trigun Dinesh Maroo
		idetc2020-22330	Geometrico-Static Analysis of a New Collaborative Parallel Robot for Safe Physical Interaction	Guillaume JEANNEAU
		idetc2020-22548	RATS: A Robotic Arm Training System Designed for Rats	Haohan Zhang
	DAC 11-2: Engineering for Global Development	idetc2020-22634	Incorporating Contextual Factors Into a Design Process: An Analysis of Engineering for Global Development Literature	Grace Burleson
		idetc2020-22686	Engineering for Global Development: Characterizing the Discipline Through a Systematic Literature Review	Jesse Austin-Breneman
		idetc2020-22507	Identifying Sustainable Solutions for Sanitation, Energy, and Water Needs in Off-Grid Indian Villages	Anju Vijayan Nair
		idetc2020-22772	Stakeholder Perceptions of Requirements Elicitation Interviews With and Without Prototypes in a Cross-Cultural Design Setting	Marianna Coulentianos
		idetc2020-22525	Microgrid Power Management With Integrated Quality of Life Considerations	John Hall
		idetc2020-22610	Validation of an Analytical Model to Lower the Cost of Solar-Powered Drip Irrigation Systems for Smallholder Farmers in the Mena	Fiona R Grant
				Carolyn Sheline
	VIB Conference 8	idetc2020-22638	Deformable Blade Element and Unsteady Vortex Lattice Fluid-Structure Interaction Modeling of a 2d Flapping Wing	Mark Jankauski
		idetc2020-22140	Tooth Meshing Estimation Based on Monitoring Rotational Vibration and Infrared Thermography Image of Hypoid Gear	Ren Yamashita
		idetc2020-22422	Investigating How Additively Manufactured Parts in Traditionally Manufactured Systems Affect the System Dynamic Properties	Lawrence Funke
		idetc2020-22008	Discontinuous Dynamics and Bifurcation for Morphing Aircraft Switching on the Velocity Boundary	Jianzhe Huang
		idetc2020-22205	A Robust Data-Driven Identification Algorithm for Nonlinear Dynamical Systems With Time Delay	Ghazaale Leylaz Mehrabadi
	CIE Complex Systems Engineering and Design	idetc2020-22664	Evolutionary Approach to Function Model Synthesis: Development of Parameterization and Synthesis Rules	Amaninder Gill
		idetc2020-22360	A Method to Specify Part of a System to Change in Improvement Design	Kazuya Oizumi
		idetc2020-22568	Agent Based Resilient Transportation Infrastructure With Surrogate Adaptive Networks	Cameron Turner
		idetc2020-22396	Exploring System of Systems Resilience vs. Affordability Trade-Space Using a Bio-Inspired Metric	Abheek Chatterjee

	CIE Methods, Processes and Strategies for Technology	idetc2020-22414	Development of Virtual Reality Training Scenario for Avalanche Rescue	Marina Carulli
		idetc2020-22416	Medical Assessment Test of Extrapersonal Neglect Using Virtual Reality: A Preliminary Study	Andrea Vitali
		idetc2020-22300	Linking Performance Data and Geospatial Information of Manufacturing Assets Through Standard Representations	Teodor Vernica
		idetc2020-22443	Survey of Digital Tools for the Generation of Ideas	Marina Carulli
		idetc2020-22413	Virtualy Reality to Improve the User Experience of Traditional Museums	Marina Carulli
	MSNDC 1.5 - Computational methods	idetc2020-22385	A Two-Stage Extension of the Generalized-α Method for Constrained Systems in Mechanics	Laurent Jay
		idetc2020-22597	Data Driven Model Identification for a Chaotic Pendulum With Variable Interaction Potential	Melih Yesilli
		idetc2020-22572	A Jupyter Notebook Environment for Multibody Dynamics	Aaron Gaut
		idetc2020-22584	Interval-Based Solving Techniques for Large-Scale Dynamical Systems	Angel Garcia
		IDETC2020-22036	On Periodic Motions in a Periodically Driven van der Pol-Duffing Oscillator	Yeyin Xu
	MSNDC 4.1 - Structures	idetc2020-22225	Nonlinear Structural Dynamics and Stress Analysis of Composite Aerostructural Skin Panels	Richard Wiebe
		idetc2020-22233	On the Dynamics of a Quadratic-Oscillator-Based, Infinite-Equilibrium System	Siyuan Xu
		idetc2020-22565	Experimental Study of Mullins Effect in Natural Rubber for Different Stretch Conditions	Elli Gkouti
		idetc2020-22524	Unification of Poincaré and Floquet Theory for Time Periodic Systems	Susheelkumar Subramanian
		idetc2020-22018	Insight Into the Non Periodic Motion of the Knife Follower With a Polydyne Cam Mechanism	Louay S. Yousuf
4:20pm - 5:20pm	MR-2-2 Theoretical & Computational Kinematics	idetc2020-22508	Neural Network Based Transfer Learning of Manipulator Inverse Displacement Analysis	Houcheng Tang
		idetc2020-22569	A Dual Quaternion Based Method for Estimating Margins for Planning Target Volumes in Radiotherapy	Qiaode Jeffrey Ge
		idetc2020-22231	Symbolic Computation of Inverse Kinematics for General 6R Manipulators Based on Raghavan and Roth's Solution	Keisuke Arikawa
		idetc2020-22332	Variable Degree-of-Freedom Spatial Mechanisms Composed of Four Circular Translation Joints	Xianwen Kong
	DAC 3-2/DAC 13-1: Data-Driven Design and Human-Centered Design	idetc2020-22460	Theoretical Framework for Design for Dynamic User Preferences	Jesse Austin-Breneman
		idetc2020-22567	Topic Modeling and Sentiment Analysis of Social Media Data to Drive Experiential Redesign	Binyang Song
		idetc2020-22778	An Approach for Representing and Evaluating User Tactics in Early Stage Product Development	Trent Owens
		idetc2020-22539	Head and Neck Injury Risk Criteria-Based Robust Design for Vehicular Crashworthiness	Anand Balu Nellippallil
	DAC 5-1: Sustainable Energy Systems and Sustainable Design	idetc2020-22318	A Model Predictive Control-Based Energy Management Strategy Considering Electric Vehicle Battery Thermal and Cabin Climate Co	Yuanzhi Liu
		idetc2020-22644	Using Network Partitioning to Design a Green Supply Chain	Jack Williams
				Farrokh Mistree
	CIE Uncertainty Quantification in Simulation and Model Verification & Validation	idetc2020-22259	Inverse Multi-Scale Robust Design of Composite Structures Using Design Capability Indices	Soban Babu Bemmaraj
		idetc2020-22184	srMO-BO-3GP: A Sequential Regularized Multi-Objective Constrained Bayesian Optimization for Design Applications	Anh Tran
		idetc2020-22234	Multi-Fidelity Surrogate Model-Assisted Fatigue Analysis of Welded Joints	Tingli Xie
	MSNDC 3.2 - Vehicles and control	idetc2020-22020	Modelling, Optimization, and Analysis of the Passive/Active Vibration Control of a Seat Suspension System	Raj Desai
		idetc2020-22066	Numerical Procedure for Non-Hertzian Wheel-Rail Contact Model Integrated in Quasi-Steady Railway Vehicle Motion Solver	Takayuki Tanaka
		idetc2020-22051	Controller Design and Road-Friendly Suspension Optimization: Half Vehicle Model	Vikas Prasad
		idetc2020-22764	Finite Element Model for Prediction of Ground Vehicle Mobility Over Vegetation Covered Terrains	Tamer Wasfy
	MSNDC - 7.1 - Smart structures	idetc2020-22541	Nonlinear Dynamic Response of an Isolation System With NegativeStiffness and Shape Memory-Based Damping	Andrea Salvatore
		idetc2020-22470	Dynamic Morphing of Elastic Plates via Principal Parametric Resonance	Andrea Arena
		idetc2020-22299	Nonlinear Analysis and Performance of Energy Harvesting Absorbers With Stoppers for Controlling Fluid-Induced Vibrations of Dyn	Tyler Alvis
		idetc2020-22493	A Numerical Study on the Control of a Single-Degree-of-Freedom Oscillator With Symmetric Deformable and Dissipative Constraint	Giulia Stefani
	DFMLC 1-1: Design for Innovative Products & Processes	idetc2020-22694	Design of Passive Lower Limb Exoskeleton to Aid in Injury Mitigation and Muscular Efficiency	Dylan Tracey
		idetc2020-22125	Monitoring Method for Laser Via Hole Processing of Printed Circuit Boards Based on Two-Color Method With a High-Speed Video C	Wataru Nakagawa
		idetc2020-22236	Basic Performance of Natural Fiber Bevel Gears Made From Only Bamboo Fibers Extracted With a Machining Center	Kawabata Tetsuya
		Invited	Life Cycle Analysis of Electrode-Electrolyte-Separator to Improve Effectiveness of Supercapacitors	Vispi Karkaria
Day 3 August 19th (Times in US EDT)				
	Student Design Essay Competition	Essay 1	An Autonomous Approach to Facilitiate Global Remote Healthcare Services	Lakshmi Narasimhon
		Essay 2	How Does it Affect Me? The Need for Empathy is a Sustainable World	Rohan Prabu
		Essay 3	Enterprise Resource Planning Systems: Technology Implementation for High-Tech Manufacturing Firms in the Year 2035	Allan Soo
	MR-3-1 Compliant Mechanisms	idetc2020-22227	Tuning Stiffness Nonlinearity: Theory and Applications	Mohamed Zanaty
		idetc2020-22075	Design of a Flexure Based Low Frequency Foucault Pendulum	Patrick Fluckiger
		idetc2020-22049	Hinges and Curved Lamina Emergent Torsional Joints in Cylindrical Developable Mechanisms	Kenny Seymour
		idetc2020-22352	Static Balancing of Four-Bar Linkages With Torsion Springs by Exerting Negative Stiffness Using Linear Spring at the Instant Center	Juan A. Gallego-Sanchez
		idetc2020-22266	Visualising Compliance of Composite Shell Mechanisms	Jonathan Stacey
		idetc2020-22370	Passive Mechanical Metamaterial Sensor and Actuator	Usman Waheed
		idetc2020-22100	Design of a Compliant Hinge Based on Closed Form Pressure Balancing	Joep Nijssen
	DAC 15-1: Multi-objective Optimization and Sensitivity Analysis	idetc2020-22390	Automated Design Tool for Automotive Control Actuators	Cyril Picard
		idetc2020-22397	Objective Reduction Using Axiomatic Design and Product-Related Dependencies: A Layout Synthesis of an Autonomous Greenhous	Yann-Seing Law-Kam Cio
		idetc2020-22257	Designing Excitation Maneuvers With Maximal Parameter Sensitivity for an X-by-Wire Autonomous Tricycle	Yi-Ping Chen
		idetc2020-22373	A Method for Solving Multi-Objective Optimization Problems Containing an Infinite Number of Parameterized Objectives	Eliot Rudnick-Cohen
		idetc2020-22602	Adaptive Linear Programming Algorithm With Parameter Learning for Managing Engineering-Design Problems	Lin Guo

10:00am - 11:20am	DAC 12-1/DAC 17-1: Geometric Modeling and Algorithms for Design for Manufacturing/Platform Architecture and Product Family Design	idetc2020-22627	Automated Layout Generation Methods for 2D Spatial Packing	Satya R T Peddada
		idetc2020-22708	Generative Infills for Additive Manufacturing Using Space-Filling Polygonal Tiles	Matthew Ebert
		idetc2020-22211	Lineup Design Method for Intermediate Product Family by Monotonicity-Guided Optimization of Nested Mini-Max Problem	Kikuo Fujita
		idetc2020-22488	Optimal Product Family Architecture Design and Commonality Decision for Sustainability and Intellectual Property Protection	Jinju Kim
		idetc2020-22518	Deriving Metamodels to Relate Machine Learning Quality to Design Repository Characteristics in the Context of Additive Manufact	Glen Williams
		IDETC2020-22725	Enhanced Toolpath Planning for Fused Filament Fabrication	Hongrui Chen
	CIE Design, Simulation and Optimization for Additive Manufacturing	idetc2020-22496	Parallelized Additive Manufacturing of Variably Partitioned Volumes for Large Scale 3D Printing With Localized Quality	Mahmoud Dinar
		idetc2020-22549	A Neighborhood-Based Neural Network for Melt Pool Prediction and Control	Yaqi Zhang
		idetc2020-22198	Optimizing Support for Heat Dissipation in Additive Manufacturing	Cunfu Wang
		idetc2020-22280	Analysis of Extrusion Parameters for the Fused Deposition Modeling Process	Zhengwei Nie
		idetc2020-22711	Architecting the Cooperative 3D Printing System	Laxmi Poudel
		idetc2020-22455	Morphological Analysis of 316L Laser Powder Bed Fusion Melt-Pool via the Enriched Analytical Solution Method	John Michopoulos
	CIE Virtual Environments and Design Visualization	idetc2020-22486	A Study of Human Balance and Coordination Using a Head Mounted Display	Alley Butler
		idetc2020-22624	Multi-Context Generation in Virtual Reality Environments Using Deep Reinforcement Learning	James Cunningham
		idetc2020-22308	A Low Cost Motion Analysis System Based on RGB Cameras to Support Ergonomic Risk Assessment in Real Workplaces	Abudukaiyoumu Talipu
		idetc2020-22326	Virtual Reality to Simulate an Inflatable Modular Hydroponics Greenhouse on Mars	Francesca Bruno
		idetc2020-22126	Data Mining From Endmill Tool Catalog Information Based on the Use of a Machine Learning Method	Akihito Asakura
	MSNDC - 6.1 - Biomechanics	idetc2020-22147	Towards Data-Driven Modeling of Pathological Tremors	Jiamin Wang
		IDETC2020-22419	Modelling Stick Balancing by Applying Switching-Type Control	Dalma J. Nagy
		idetc2020-22407	Estimation of Reaction Time During Human Balancing on Rolling Balance Board Based on Mechanical Models	Csenge Andrea Molnar
		idetc2020-22304	Effects of Flight Controls and Cockpit Layout Design in Rotorcraft-Pilot Couplings: A Computational Approach	Andrea Zanoni
11:35am - 12:55pm	MR-3-2 Compliant Mechanisms	idetc2020-22160	Analysis and Study of Variable Stiffness Joints Based on Bi-Material Nested Elastomers	Wei Sun
		idetc2020-22420	A Novel Compliant Bistable Mechanism Incorporating a Fixed-Guided Flexural Member	David Myszka
		idetc2020-22546	Six-Bar Linkages With Compliant Mechanisms for an Adaptive Robot	Michael Pieber
		idetc2020-22445	Designing Developable Mechanisms From Flat Patterns	Lance Hyatt
		idetc2020-22438	Designing Conformal Ferromagnetic Soft Actuators Using Extended Level Set Methods (X-LSM)	Shikui Chen
		idetc2020-22760	A Methodology to Design a Variable Resistance Hand Exerciser Using a Compliant Mechanism	Ashok Midha
		IDETC2020-22761	A Primal Treatise of Constant-Force, Compliant Segments and Mechanisms	Ashok Midha
	DAC 2-2: Artificial Intelligence and Machine Learning	idetc2020-22729	PaDGAN: A Generative Adversarial Network for Performance Augmented Diverse Designs	Wei Chen
		idetc2020-22519	Enhanced Particle Swarm Optimization via Reinforcement Learning	Di Wu
		idetc2020-22714	Learning to Abstract and Compose Mechanical Device Function and Behavior	Jun Wang
		idetc2020-22014	Design of Control Systems Using Active Uncertainty Reduction-Based Reinforcement Learning	Zequn Wang
	CIE Systems Engineering and Smart Manufacturing Informatics	idetc2020-22085	Multi-Objective Implementation of Additive Manufacturing in Make-to-Stock Production	Ping Chong Chua
		idetc2020-22380	Towards a Zero Trust Hybrid Security and Safety Risk Analysis Method	douglas vanbossuyt
		idetc2020-22582	Is Verifying Frequently an Optimal Strategy? A Belief-Based Model of Verification	Aditya Umesh Kulkarni
		idetc2020-22040	Application of Munich Agile Concept for MBSE by Means of Automated Valet Parking Functions and the 3D Environment-Data	Vahid Salehi Douzloo
		idetc2020-22310	Additively Manufactured Tags for Cast Part Traceability Using Two Dimensional Digital Code Direct-Part-Marking	Uyan Tekin
		idetc2020-22579	Unsupervised Method of Determining Cycle Times of Manual Assembly Processes	Rahul Sharan Renu
	MSNDC - 5.1 - Nonlinear dynamics	idetc2020-22387	Bifurcation Analysis of a Lane Keeping Controller With Feedback Delay	Illes Voros
		idetc2020-22188	Criticality of Hopf Bifurcation in Precision Motion Stage With PID and Time-Delayed Feedback Controls	Jiamin Wang
		idetc2020-22362	Collocated Position Control of Oscillatory System in Presence of Delay	Bence Szaksz
		idetc2020-22137	Error Quantification in Dynamic Applications of Weakly Nonlinear Transducers	Lautaro Cilenti
		idetc2020-22504	Control Co-Design: Achieving New Functionality and Performance via Integrated Physical and Control System Design	Daniel Herber
1:10pm - 2:30pm	MR-5-1 Motion Planning, Dynamics, and Control	idetc2020-22296	Shaking Force Balancing of the Delta Robot	Jing Geng
		idetc2020-22501	Neuroadaptive Controller for Physical Interaction With an Omni-Directional Mobile Nurse Assistant Robot	Shamsudeen Abubakar
		idetc2020-22734	Multiparameter Real-World System Identification Using Iterative Residual Tuning	Adam Allevato
		idetc2020-22430	Stiffness Modulation for a Planar Mobile Cable-Driven Parallel Manipulators via Structural Reconfiguration	Adhiti Raman
		idetc2020-22347	The Influence of Heat Exchanges on Friction in Robotic Joints: Theoretical Modelling, Identification and Experiments	Roberto Pagani
		idetc2020-22722	Robust Relative Hand Placement for Bi-Manual Tasks	Anirban Sinha
		idetc2020-22720	Stability Region-Based Analysis of Walking and Push Recovery Control	William Z. Peng
	DAC 6-2: Design for Additive Manufacturing	idetc2020-22386	3D Additive Lattice Topology Optimization: A Unit Cell Design Approach	Brad Hanks
		idetc2020-22447	Favoring Complexity: A Mixed Methods Exploration of Factors That Influence Concept Selection in Design for Additive Manufacturi	Rohan Prabhu
		idetc2020-22448	A Review of Part Filtering Methods for Additive Manufacturing	Christopher Mccomb
		idetc2020-22458	Scalable Set-Based Design Optimization and Remanufacturing for Meeting Changing Requirements	Khalil Al Handawi
		idetc2020-22506	Rule of Mixtures Model for 3D Printed Kevlar Reinforced Nylon: Determination of Volume Fraction Using Thermal Gravimetric Anal	John Hall
	CIE Cyber-Physical Systems	idetc2020-22672	Enabling Traceability in Agri-Food Supply Chains Using an Ontological Approach	Farhad Ameri
		idetc2020-22661	Design of Trustworthy Cyber-Physical-Social Systems With Discrete Bayesian Optimization	Yan Wang
		idetc2020-22628	Scalable Thermal Simulation of Powder Bed Fusion	Yaqi Zhang
		idetc2020-22032	Spiral Tool Path Generation for CNC Machining Using Cloud of Points	Mandeep Dhanda

	MSNDC 4.3 - Structures	idetc2020-22715	Vibration Suppression of a Harmonically Forced Oscillator Using a Passive Nonlinear Vibration Absorber	Bo Yu
		idetc2020-22176	Period-3 Motions in a Parametrically Exited Inverted Pendulum	Albert Luo
		idetc2020-22272	Breaking Dynamic Reciprocity Allows for Strong Vibration Isolation in a Multi-Floor Nonlinear Structure	Keegan Moore
		idetc2020-22149	Modal Reduction Procedures for Flexible Multibody System Applications	Matteo Scapolan
		idetc2020-22712	Period-1 to Period-2 Motions in a Discontinuous Oscillator	Siyu Guo
		idetc2020-22392	A Heterogeneous Model for Gait Analysis of the Lower-Limb and the Prosthesis Coupled System	Xiaoxu Zhang
2:45pm - 4:05pm	MR-2-1 Theoretical & Computational Kinematics	idetc2020-22301	Identification of Non-Transversal Bifurcations of Linkages	Andreas Mueller
		idetc2020-22169	Kinematic Calibration of a 3rRPS Metamorphic Parallel Mechanism	Dongming Gan
		idetc2020-22513	Artificial Neural Network Prediction of Deflection Maps for Cable-Driven Robots	Leila Notash
		idetc2020-22456	A Mobility Determination Method for Parallel Platforms Based on the Lie Algebra of SE(3) and its Subspaces	José M. Rico
	DAC 10-2: Design of Engineering Materials and Structures	idetc2020-22690	A Parametric Study on the Effects of Reynolds Number on the Topology Optimization of Navier-Stokes Flows	Joel Najmon
		idetc2020-22357	Simulation Assisted Design of LCO Cathode Materials With High Performance Stability	Yumeng Li
		idetc2020-22400	A Topology Optimization Method for the Design of Orthotropic Plate Structures	Hollis Smith
		idetc2020-22595	Data-Driven Multiscale Topology Optimization Using Multi-Response Latent Variable Gaussian Process	Liwei Wang
		idetc2020-22509	Large-Scale Three-Dimensional Anisotropic Topology Optimization of Variable-Axial Composite Structures	Kazuhiro Saitou
		idetc2020-22564	A Simple and Effective Methodology to Perform Multi-Objective Bayesian Optimization: An Application in the Design of Sandwich C	Homero Valladares
	CIE Poster Session	Poster 1	Joseph Distefano	Joseph Distefano
		Poster 2	Jicmat Ali Tribaldos	Jicmat Ali Tribaldos
		Poster 3	Jiming Bai	Jiming Bai
		Poster 4	Abhinaba Basu	Abhinaba Basu
		Poster 5	Anjana Deva Prasad	Anjana Deva Prasad
		Poster 6	Christopher Matte	Christopher Matte
		Poster 7	Cheng Chan	Cheng Chan
		Poster 8	Xiaoou Yang	Xiaoou Yang
		Poster 9	Hannah Nolte	Hannah Nolte
4:20pm - 5:20pm	DAC 16-1: Multidisciplinary Design Optimization	idetc2020-22263	A Two-Stage Multi-Fidelity Design Optimization for K-mer-Based Pattern Recognition (KPR) in Image Processing	Po Ting Lin
		idetc2020-22068	Topology Optimization of the Pelvic Bone Prosthesis Under Single Leg Stance	Kandula Eswara Sai Kumar
		idetc2020-22695	A Novel Two-Stage Design Framework for 2D Spatial Packing of Interconnected Components	Satya R T Peddada
	CIE Human Modeling and Simulation in Engineering	idetc2020-22688	Perineum Pressure Distribution Among Various Bicycle Saddles	Jazmin Cruz
		idetc2020-22115	Two-Dimensional Team Lifting Prediction With Different Box Weights	Asif Arefeen
		idetc2020-22120	Three-Dimensional Symmetric Maximum Weight Lifting Prediction	Rahid Zaman
		idetc2020-22668	Predictive Human-in-the-Loop Simulations for Assistive Exoskeletons	Xianlian Zhou