Intelligent Design and Engineering of Aerospace Systems
IDEAS 2019

Thursday August 15, 2019		
Time	**Topic**	**Presenter/Room**
08:30 – 09:00	**Workshop Registration**	
09:00 – 09:30	NASA Background and Perspective	Ajay Misra, Deputy Director of Research, NASA GRC
09:30 – 10:00	AFRL Life Cycle Management Propulsion Directorate Digital Management	Michael Metzger, Digital Engineering IPT Lead Engineer, AFRL
10:00 – 10:15	**Break and Networking**	Lobby
10:15 – 10:45	DOE Background and Perspective	Richard Dennis, Technology Manager, Advanced Turbines & Supercritical CO_2 Power Cycle Program, U.S. Department of Energy
10:45 – 11:45	Open Collaboration Session	NASA SMEs Available in Industry Room
11:45 – 13:00	**Lunch, discussions, and demos**	
13:00 – 14:00	Role of AI in AR Applications for Maintenance (Talk and Demo)	Shivakumar Sastry, University of Akron
14:00 – 14:30	Wall modeled large-eddy simulations of low in rotating frames of reference-comparing a physic-based approach to a data-based approach	Xiang Yang – PennState University
14:30 – 15:00	**Break and Networking**	Lobby
15:00 – 15:30	Adaptive Software and Structural Analysis, Design and Health Monitoring using Machine Learning	Rakesh Kapania Virginia Polytechnic Institute and State University
15:30 – 16:00	One on One Session	

Friday August 16, 2019		
08:30 – 09:00	**Introduction to Day 2**	
09:00 – 09:30	GE Perspective on AI in propulsion	Gary Wendt, GE Aviation
09:30 – 10:00	AI in Propulsion – Mechanics, Machine Learning and Multidisciplinary Optimization	Nagendra Somanath (Advanced Technology and Preliminary Design, Pratt and Whitney) and Soumalya Sarkar (research Engineer, UTRC)
10:00 – 11:00	Government Only Session 1	Boardroom
	GVIS demos	Lobby
11:00 – 12:00	AI in Design and Modeling	Panel Discussion (GE, P&W, UTRC, AF, DOE, Solar Turbines)
12:00 – 13:00	**Lunch**	
13:00 – 16:00	Ideation Session – Priority Areas, Road-mapping activity	Rebecca Kwiat, ATS, NASA GRC
16:00 – 16:30	**Closing Remarks**	