

Panel: Challenges in Satisfying the Need and Promotion of Modeling & Simulation Workforce



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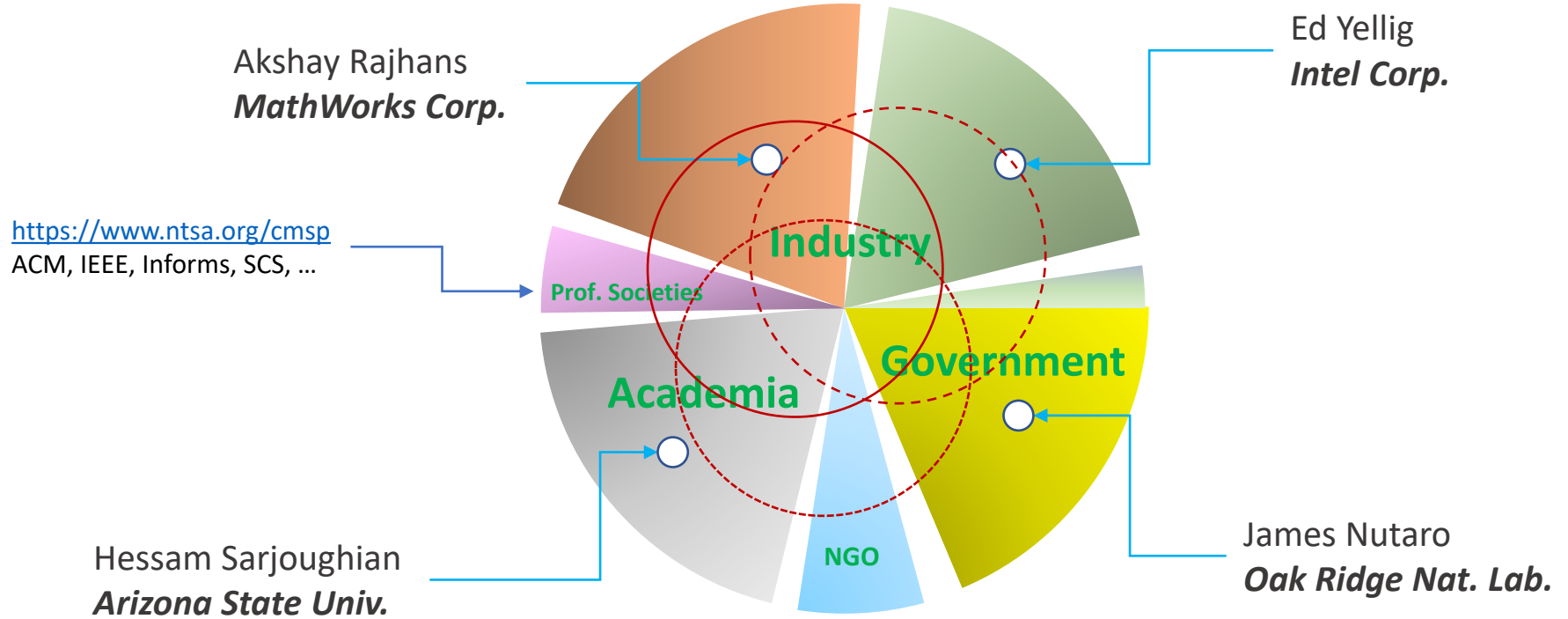
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Panel: Challenges in Satisfying the Need and Promotion of Modeling & Simulation Workforce



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Stakeholders (A View)

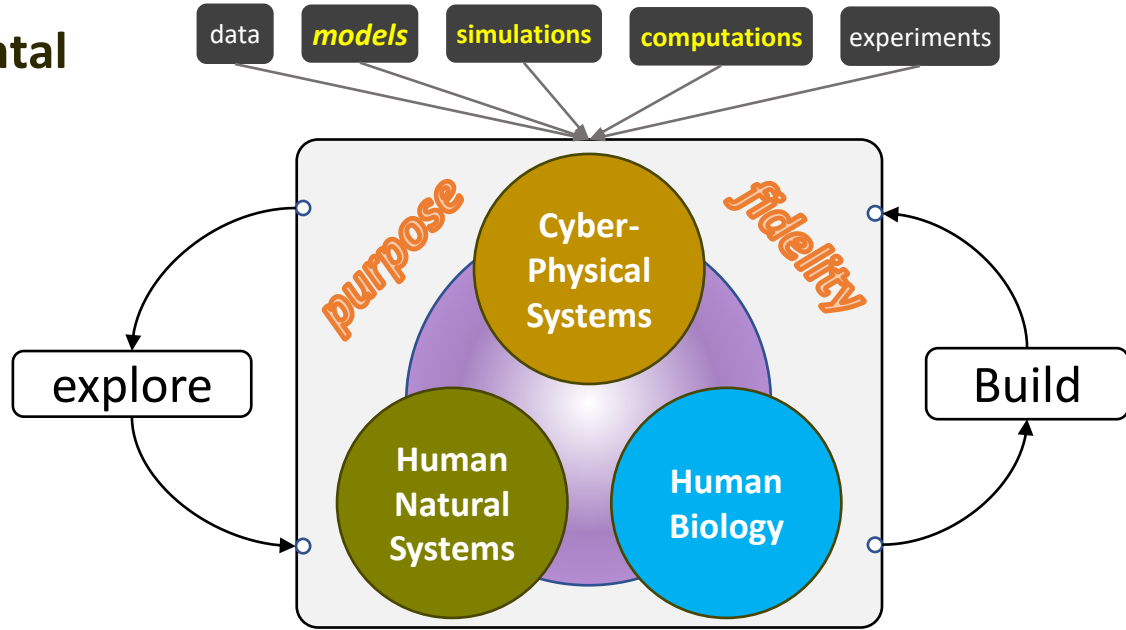


Heterogenous Systems-of-Systems

models of systems are instrumental

→ posing *useful* questions

→ finding *practical* answers



- Models at multiple levels of abstraction are needed
- Executions of different model types are needed

M&S Research, Education, Practice



University Programs (not exhaustive)

- **Arizona State University**
 - Masters of Engr., Fulton Schools of Engr. (2005 – 2017)
- **Georgia Tech Professional Education**
 - Certificate
- **Naval Postgraduate School: Modeling, Virtual Environments and Simulation (MOVES)**
 - Certificate, MS, PhD
- **Old Dominion Univ.**
 - Certificates, MS, PhD, and D. Engr., College of Engr. & Tech.
- **Portland State University**
 - Computer Modeling and Simulation
- **Roger William University**
 - BS (Major, Minor), Dept. of Mathematics, School of Social and Natural Sciences
- **University of Alabama, Huntsville**
 - Certificate
- **Univ. of Central Florida**
 - MS and PhD, Certificates in Cybersecurity and Technical Systems
- **University of Pittsburg**
 - PhD, Computation modeling and simulation, School of Computing and Informatics
- **Univ. of Wisconsin**
 - MS, Modeling and Simulation in Mechanical Engineering

Part I



Survey is from the Modeling & Simulation perspective

Very likely to very unlikely growth in (5-1)

	5	4	3	2	1
demand for professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
demand for basic research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
demand for applied research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
demand in practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
demand in advanced tools	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
demand in continuing education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Anonymous Survey (open through 12/31/2021)

Strongly agree to strongly disagree M&S (5-1)

	5	4	3	2	1
should be a discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Should be a niche for should be a part of every specific science and engineering area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
should be considered primarily as part of software engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
should be considered primarily as a part of systems engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part II: M&S Education Offerings should be offered at what level(s)?



Part II: M&S Education Offerings should be offered at what level(s)?

Strongly Agree to Strongly Disagree (5-1)

	5	4	3	2	1
undergraduate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
masters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ph.D.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
certificate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part III: Observations and Comments



Description (optional)

Observations and Comments

Long answer text

<https://tinyurl.com/yar6k6fu>

Open through 12/31/2021



Future of M&S Workforce ...

