Computer Science Advisory Board Meeting
Fall 2020
Agenda
Comp Sci Advisory Board Meeting Dec 4, 2020, 1:00-2:00

1. Introduction by Chris Meissner (5min)

2. Update on department by Michael Soltys (20min + questions)

3. Update on Mechatronics Engineering by Bahareh Abbasi and Vida Vakilian (20min + questions)
At least 50% of students majoring in these programs reported having a positive (awesome or pretty good) experience with virtual learning in Fall 2020. Please note that reported virtual experiences include classes outside of students’ major program.

**Students With Positive Experiences By Major:**

- Computer Science
- ESRM
- Spanish
- Health Science
- Nursing
- Liberal Studies
- Performing Arts
<table>
<thead>
<tr>
<th>Term</th>
<th>Fall 2018</th>
<th>Spring 2019</th>
<th>Fall 2019</th>
<th>Spring 2020</th>
<th>Fall 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS</td>
<td>320</td>
<td>300</td>
<td>331</td>
<td>298</td>
<td>316</td>
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<tr>
<td>IT</td>
<td>85</td>
<td>79</td>
<td>84</td>
<td>82</td>
<td>95</td>
</tr>
<tr>
<td>EMEC</td>
<td>34</td>
<td>29</td>
<td>51</td>
<td>52</td>
<td>63</td>
</tr>
</tbody>
</table>
## Enrollments

### Troublesome trends

<table>
<thead>
<tr>
<th>Type</th>
<th>CSU System</th>
<th>CSUCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>-40%</td>
<td>-28%</td>
</tr>
<tr>
<td>Transfer</td>
<td>-51%</td>
<td>-17%</td>
</tr>
<tr>
<td>Undergrad</td>
<td>-44%</td>
<td>-25%</td>
</tr>
<tr>
<td>Grad</td>
<td>-25%</td>
<td>11%</td>
</tr>
</tbody>
</table>

![Cycle comparison total submitted designations graph](image)
Updates

Grants

- We received internal grants such as SURF, MiniGrant
- Vida and Reza obtained the first departmental NSF grant
- Faculty submitted grants to DoD
- Fellowships with the Office of Naval Research
Updates
Publications

• Abbasi: Role Switching in Task-Oriented Multimodal Human-Robot Collaboration" at the 29th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)

• Isaacs: Programming, Robotics, and Control for High School Students. ASEE Advances in Engineering Education; Congestion Strategies for Clustered Central Place Foraging. International Conference on Automation, Robotics and Applications

• Thoms: 4 papers, e.g., Real-Time Visualization to Improve Quality in Computer Mediated Communication, in Web Intelligence Journal, etc
• Abdolee: 3 papers in top-tier journals in electrical and computer engineering, including IEEE Trans. on Signal Processing, IEEE Access, and IEEE Trans. on Vehicular Technology

• Kaltman: Attending to Process and Data: A Research Alignment for Historical Videogame Production Artifacts and Their Archives” accepted for publication in ROMChip: A Journal of Game Histories; Emulation as a Service server set up as new node in the Emulation as a Service Infrastructure (EaaSI) project. EaaSI is a collaboration between Yale University, Stanford University, Notre Dame, Carnegie Mellon, UC San Diego and the University of Virginia; Digital Humanities, “From the Presupposition of Doom to the Manifestation of Code: Using Emulated Citation in the Study of Games and Cultural Software”, features the first use of indexed emulated state in an academic publication

• Soltys: book mentioned in Notable Titles in Algorithms; working on 4th edition. 6 papers: 3 on the cloud, one cybersec for Navy, two ML
Updates

Furthermore

• Abbasi: a graduate-level course: Neural Network and an undergraduate-level course for our Mechatronics program: Modeling of Mechatronics systems

• Kaltman: revamping our Games offering

• Many MSCS theses defenses

• Patents granted (Isaacs and Abdolee): System and method for localization and tracking using GNSS location estimates, satellite SNR data and 3D maps; cybersecurity for Internet of Things (IoT) applications and devices

• Feister: several new national collaborations in government and industry, following presentations at two national research conferences; Awarded hundreds-of-thousands of CPU-hours at national supercomputers
AWS

Partnership

- https://prof.msoltys.com/?p=5766 (Cloud training)
Conclusion - Virtual Capstone Showcase
Summary of today’s meeting and links to capstones later today at:

https://prof.msoltys.com/?p=5849