**Fall 2023 Engineering Capstone Design – Snapshot 2**
**Storyboard Presentations**
**Tuesday, December 5, 2023, from 3:30 – 4:45 pm**

## Storyboard Presentations

| Project Name | Project Sponsor | Lead Dept. | Instr. |
|---|---|---|---|
| **Power Lab (GJ 102)** | | | |
| • 19 – DC Power Bus in Residential/Commercial Buildings | Idaho Power | ECE | KS |
| • 21 – Combined GPS and Intensity Based Alignment… | Hansen Photonics | CS | BB |
| • 22A – Gamified Computers and Networks: Devices | UI CS | CS | BB |
| • 22B – Gamified Computers and Networks: Networks | UI CS | CS | BB |
| • 23 – Small-scale Factory Testbed for Cybersecurity Analysis | UI CS | CS | BB |
| • 24 – Hardware and Software Virtualization of ICS and HMI | UI CS | CS | BB |
| • 25 – Build AI Foundation Models and APIs… | UI CS | CS | BB |
| • 26 – AI-enhanced Smart Physical Rehabilitation | UI CS | CS | BB |
| **Design Suite (GJ 108)** | | | |
| • 03 – Wildfire Smoke Generator | UI CNR | ME | MR |
| • 04 – Updated Ember Generator | UI CNR | ME | MR |
| • 06 – Portable Emissions-Testing Trailer | UI CSC | ME | KK |
| • 07 – C-arm Relocation Guidance | Dr. Hiller | ME | PY |
| • 08 – Hot Cell Window Polishing Tool | Idaho National Lab. | ME | MS |
| • 09 – Glass and Dust Separation System | Idaho National Lab. | ME | MM |
| • 11 – Oil Film Interferometry | Kodiak Aircraft | ME | PY |
| • 12 – No Maintenance Pivot Point | Hyster-Yale | ME | MS |
| • 13 – Automotive Style Cab Door Windows | Hyster-Yale | ME | MS |
| • 14 – Low-Cost Metal Forming Fixture | Schweitzer Engineering Lab. | ME | MR |
| • 15 – Controlled Velocity Projectile Acceleration | Vista Outdoors | ME | MM |
| • 16 – Automatic Tool Changer for End of Arm Tools | Bastian Solutions | ME | MS |
| • 18 – Spacecraft Radiation Sensing and Radio Communications | NASA ISGC | ECE | KS/FL |
| • 20 – Portable LED Scoreboard | Friday Night Flag | ECE | KS |
| • 30 – Automated Ring/Mount Assembly Machine | Nightforce Optics | ME | MS |
| • 31 – Smart Plank Inspection & Navigation… | Wildwood Grilling | CS | JS |
| **Design Suite - Backroom (GJ 108A)** | | | |
| • 01 – Robotic Assembly of Photovoltaic Arrays | NASA ISGC | ME | MM |
| • 02 – Prandtl-D Wing Demonstration | NASA ISGC | ME | PY |
| • 05 – Fisheries Wastewater Recapture | McKinstry | ME | PY |
| • 17 – Arcadia Lake Pump Station | NASA ISGC | ECE | KS/RN |
| • 27 – Shear Stress Bioreactor | UI BE & Stanley Solutions | BE | RQ |
| • 29 – Shock Circuit for Virtual Fence System | UI BE | BE | RQ |

**Participant Instructions:**

- Capstone students:
  - Create a storyboard presenting the status of the project and plans for next semester.
    - Simple Approach → Print out 6-10 key slides and pin them to a foam board.
    - Prop up the board onto an easel (or table) for display at the location identified above.
  - Present storyboard for the entire duration; discuss and answer questions with visitors.
  - Display any hardware you have available as is practical.
  - Take turns and mingle around to other storyboard presentations.
- General attendees:
  - Mingle and visit student presentations throughout the building.
  - Encourage students to articulate the value proposition of their projects.
  - Ask lots of challenging questions to get the students to talk about their projects.
  - Provide constructive feedback and encouragement.