FEAST:
Faculty Engineering/Arts Student Teams at the University of Michigan

NEW EXEMPLARS FOR BEST PRACTICES IN ARTS INTEGRATION:

AN A2RU & ICFAD COLLABORATIVE WEBINAR

DEB MEXICOTTE

MANAGING DIRECTOR, ARTSENGINE

4/13/2022

ArtsEngine's Mission

- *ArtsEngine's mission is to deepen and enrich the Michigan experience by providing a framework in which curiosity, creativity, collaboration, and passion are engaged through interdisciplinary teaching, learning, research, and community. We do this by promoting, expanding, and enhancing programs and initiatives through which students and faculty develop as interdisciplinary thinkers, outcome-driven makers, and collaborative practitioners across the arts, design, engineering, information sciences and technology.*

ArtsEngine at University of Michigan

- Funded through a combination of discretionary and designated sources (schools and colleges, Provost office, co-sponsoring units, tuition sharing).
- Programs and Initiatives
  - Living ArtsEngine (Michigan living-learning community)
  - Funding Programs (MicroGrants, AiiR Faculty and Graduate Research Grants)
  - UARTS Curricular Effort (Creative Process, FEAST)
  - Special Programs, Projects, Co-sponsorships (Art/Sci Student Residencies, Makeathon, Science as Art)
  - Collaboration Matching and Workshops (Find A Collaborator)
  - Interdisciplinary Project Documentation (Project Gallery)

artsengine.umich.edu

ArtsEngine at University of Michigan

- Created in 2006 (Arts on Earth) by the consortium of Deans from the Stamps School of Art & Design, A. Alfred Taubman College of Architecture and Urban Planning, School of Music, Theatre &Dance and the College of Engineering (School of Information joined 2017), it was envisioned as the interdisciplinary initiative focused on supporting the integration of the arts, engineering, design, and technology on the North Campus of the University of Michigan for students and faculty.
- 2010 Michigan Meeting - "Art and art-making in the research university" laid the foundation for the Alliance for the Arts in Research Universities (a2ru).
- Two major Mellon grants awarded to look at the impact and practice of arts integration – what is it, how do you do it, why does it matter?

ArtsEngine Curricular Development

- ArtsEngine (renamed in 2009), developed living learning community Living ArtsEngine, approved for UARTS (University Arts) course prefix and established corresponding Curriculum Council.
- Expectation of a suite of UARTS curricular offerings, including an eventual certificate or minor in interdisciplinary design and collaboration.
  - Two foundational courses and occasional one-off efforts
  - Difficulty in developing co-taught or interdisciplinary coursework
  - Limited range of opportunities for student curricular participation
- First appointment of 3-year Faculty Director in 2019.
  - Gregory Wakefield, Associate Professor, CoE and SMTD

What is FEAST?

Faculty Engineering/Arts Student Teams

Launched in Fall 2020, FEAST is a suite of faculty-led interdisciplinary student research teams that are selected through a matched application process, and then complete at least a two-semester for-credit "apprenticeship" working on a directed research agenda. Students also engage with centralized learning modules and assignments, and complete pre-post participation surveys to evaluate learning outcomes. With faculty consent, students may opt for continuing with the team beyond the initial two semester commitment and can request course substitution credit on a case-by-case basis. Both undergraduate and graduate students may participate in the FEAST program.

FEAST also opens up avenues for team research, creative practice, and funding support with access to a broader range of skills and experience not generally available to faculty within their specific schools and colleges, and especially for those in arts and design disciplines.

Partnering with the Multidisciplinary Design Program (MDP) in the College of Engineering

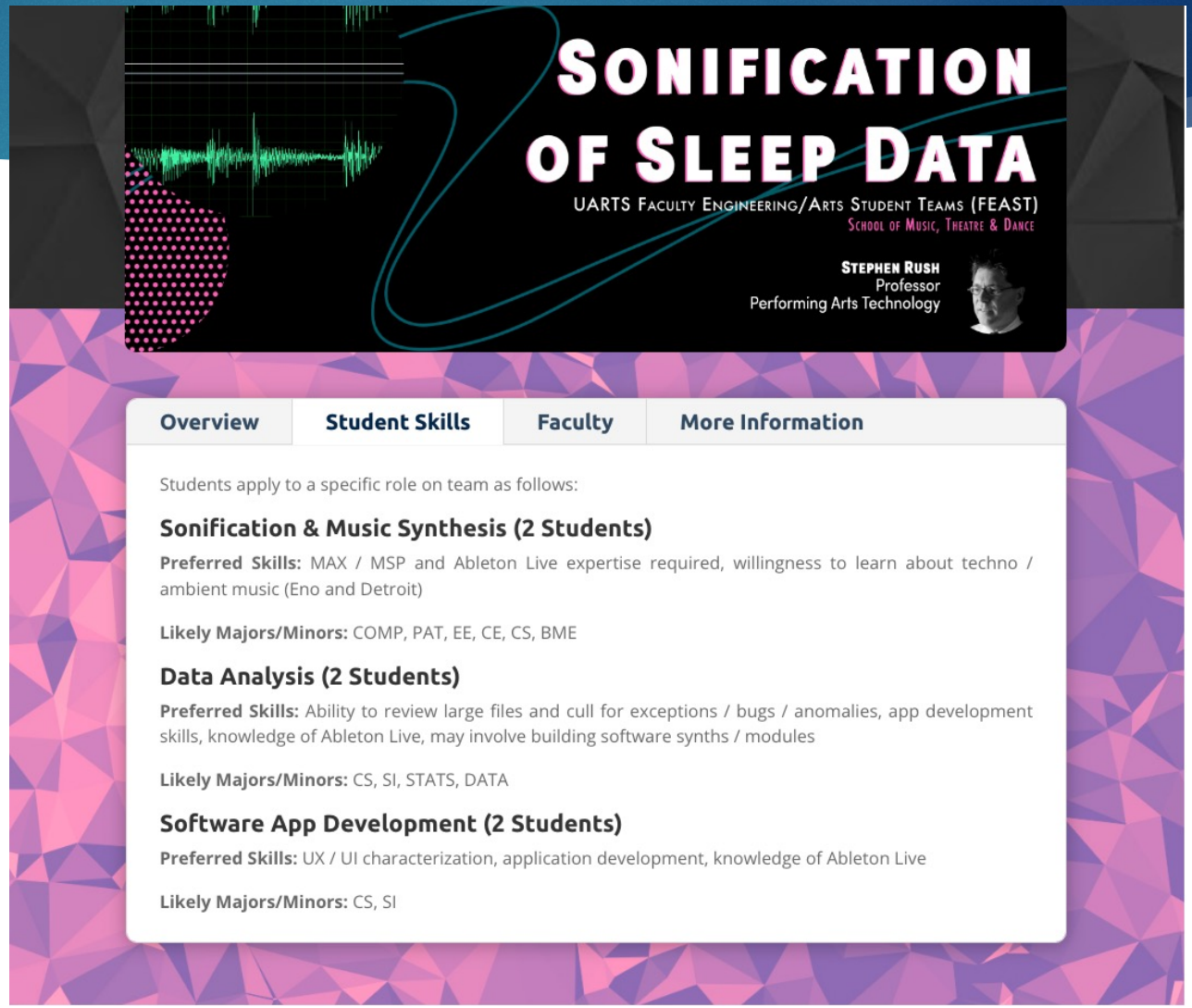
- MDP had established recruiting and team building models for their industry sponsored and engineering student research teams (FRST) and had relationships with and access to a broad range of academic advisors and programs. This is their process expanded to include faculty mentors from outside Engineering.
- Shared reporting structure through Associate Dean in the College of Engineering, part of the Immersed initiative.
- New Faculty Director was a previous faculty advisor to MDP.
- Initial groundwork Winter 2020 led to program launch Fall 2020 (because new efforts are best undertaken during the early months of a global pandemic).

Faculty Recruitment

- **Targeted outreach/invitation to ~50-60 faculty members Spring/Summer 2020**
  - Faculty from the five supporting schools and colleges for whom an interdisciplinary research/creative practice team was required or desired (including Engineering).
    - ArtsEngine Faculty Liaisons group
    - Faculty previously funded through ArtsEngine
    - Faculty with demonstrated skills (or willingness)to work with a student research team (recommendation)
    - Faculty who were interdisciplinary in their research/teaching approaches (cold calls)
- **Projects needed an expected horizon of at least 18-24 months.**
- **Project descriptions and roles were developed in consultation.**

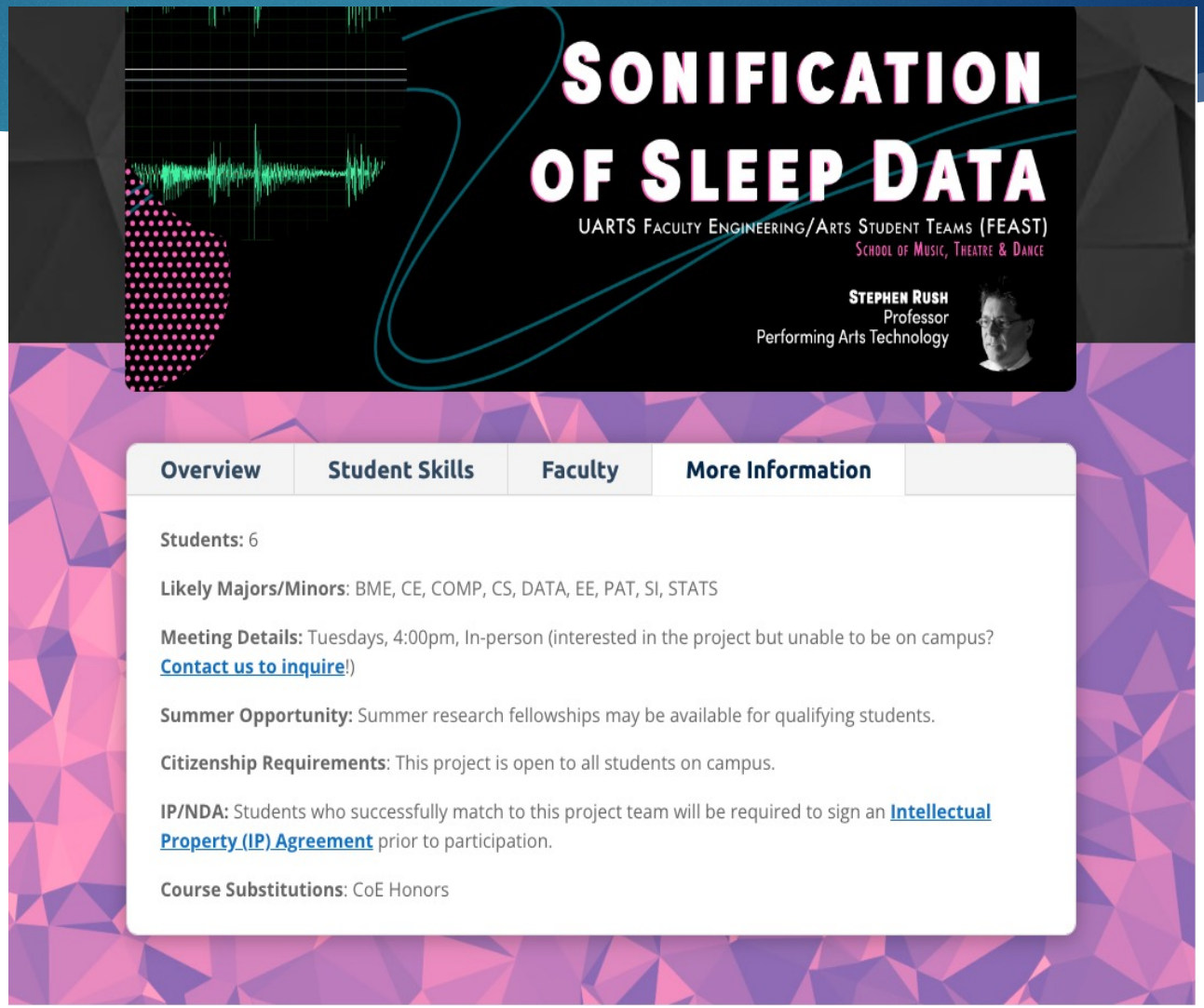
Project Set-Up: Overview

Project Set-Up: Student Roles



Project Set-Up Faculty Bio:

Project Set-Up: Add'l Info



12 Initial FEAST 2021 Projects (14 recruited)
~70 Students, 14 faculty

- Sonification of Sleep Data, Stephen Rush, SMTD
- Visualizing Telematic Music, Michael Gurevich, John Granzow, Matt Albert, SMTD
- Accessing Korean Art Song, Matthew Thompson, SMTD
- The Telemann Chorale Project, Somangsh Mukherji, SMTD
- Pre-Figural Structures for Social Connection, Nick Tobier, A&D
- Experiments in Animation and Storytelling, Endi Pokovic, A&D
- Nepalese Ceramic Water Filter, Joseph Trumpey, A&D
- Space Weather Sensor Packages, Mark Moldwin, ENGR
- Highly Useable and Rapidly-Learnable Programmable Languages, Mark Guzdial, ENGR
- LuCelegans: The Interactive Worm Nervous System, Eleni Gourgou, ENGR
- Spatial Ideas in Storytelling through Immersive Technologies, Dawn Gilpin, ARCH
- Design For Participation, Vadim Besprozvany, UMSI

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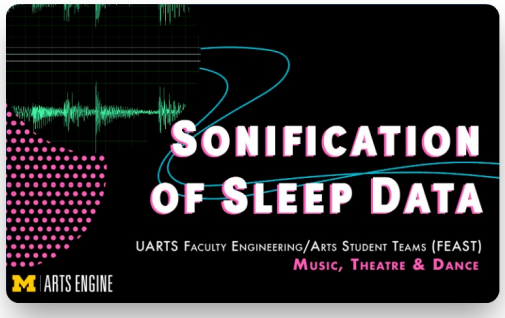
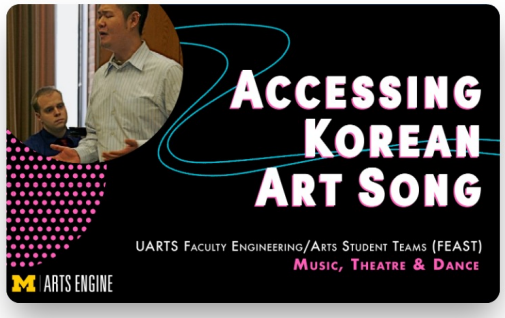
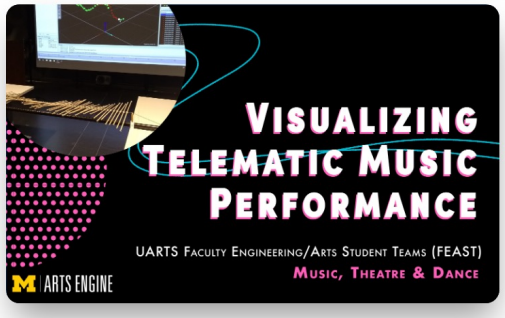
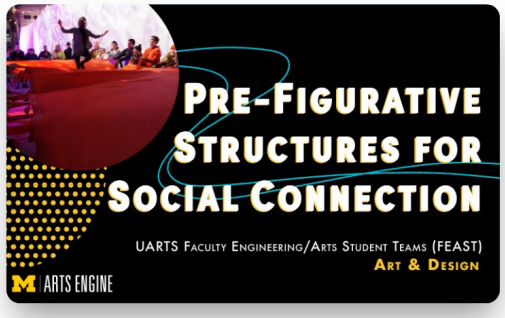
FEAS... Major/Minor Interests Course Substitutions Citizenship Mode Search Projects − Clear

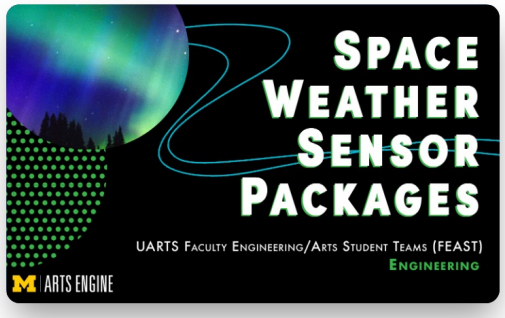
Search
FEAST Teams (19)











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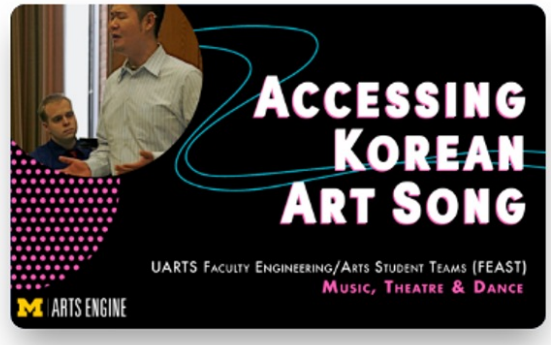
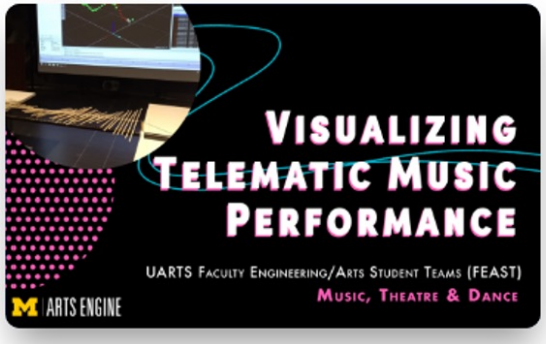
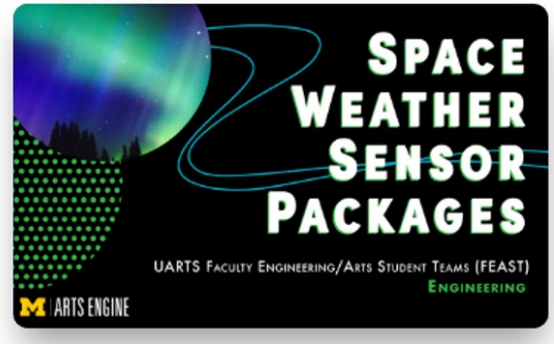
search
FEAST Teams (19)

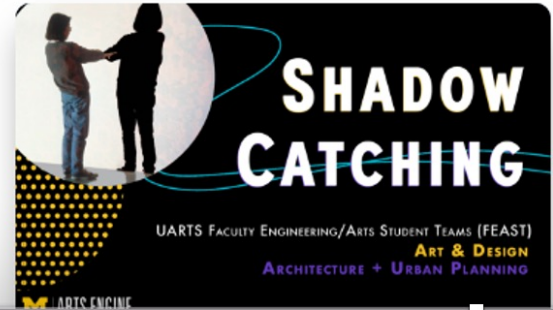
Working with doctors at the Mayo Clinic Center for Sleep Medicine, the student team will explore the possibilities of creating techno tracks from up to, at least, four data points from raw polysomnogram data (EEG/Pulse/Oxygenation). The goal is to convert sleep data into interesting music to enable sleep diagnostics that would be accurate and fun–for the world.

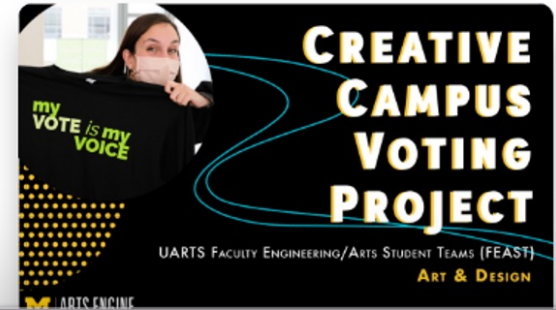
Learn More











Recruitment

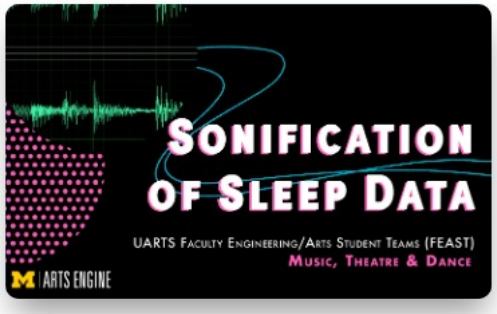
- **Project Finalization (August)**
- **Marketing (August-October)**
  - Poster Sessions, flyers, print brochures
  - Digital and social media, e-newsletters, websites
  - Info Fair with faculty participation
  - MDP/FEAST Information Sessions
  - Academic and Student Advisor Outreach
  - Direct Faculty Recruiting
  - Word-of-Mouth
- **Application (late October)**
  - Open to graduate and undergraduate students
  - Includes optional video interview, team specific questions
- **Matched Selection (Nov)**
  - Similar to Med School matching (matched for greatest mutual happiness)
  - Applicants rank projects in order of preference, and in all roles the want to be considered
    - May include mix of sponsored projects, engineering research teams
  - Faculty then also receive and rank applicants (including '0' rank for "not qualified")
  - The student rankings are blind to the faculty - and vice versa
- **Accept/Decline (Nov/Dec)**
  - Applicants match to only one team – accept or exit program for this year (Nov/Dec)
- **Teams Commence (Jan)**
  - Team Collaboration module
  - Pre-Survey

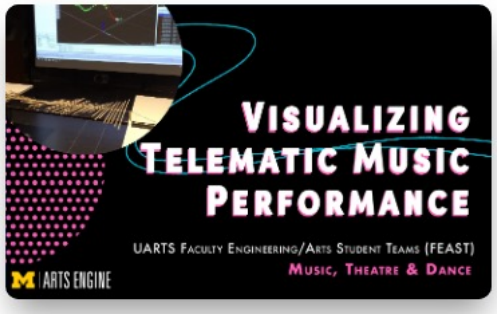
Course Details

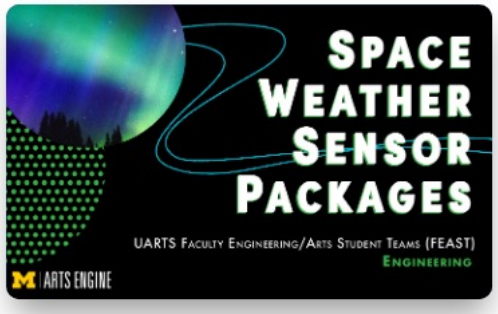
- **Students enter at level described by current transcript**
  - UARTS 260, 360, 460, 560
  - Faculty/project sections
  - Course Substitution
    - Case-by-case approval (i.e ENGR Honors)
- **Initial 2 semester, 2 credit/semester commitment**
  - Y grade mid-year, final grade at end of second semester
  - Can elect to continue at different credit levels after first full year
- **No formal curriculum separate from the faculty-led research agenda**
- **Regular meetings as arranged (no assigned classroom space)**
- **Quarterly centralized shared learning modules and regular progress reporting**
- **Course Support Stipends**
  - $2000/semester per section (reallocated tuition)
- **Faculty don't get course release – are "appointed" through ArtsEngine/CoE**

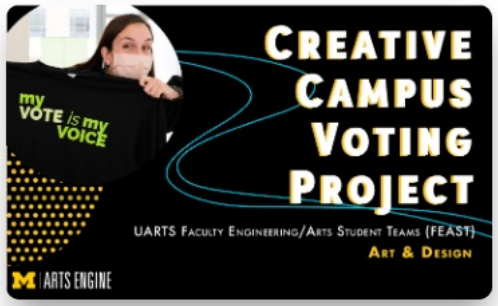
FEAST 2022

19 Teams (9 returning, 10 new)
~100 students







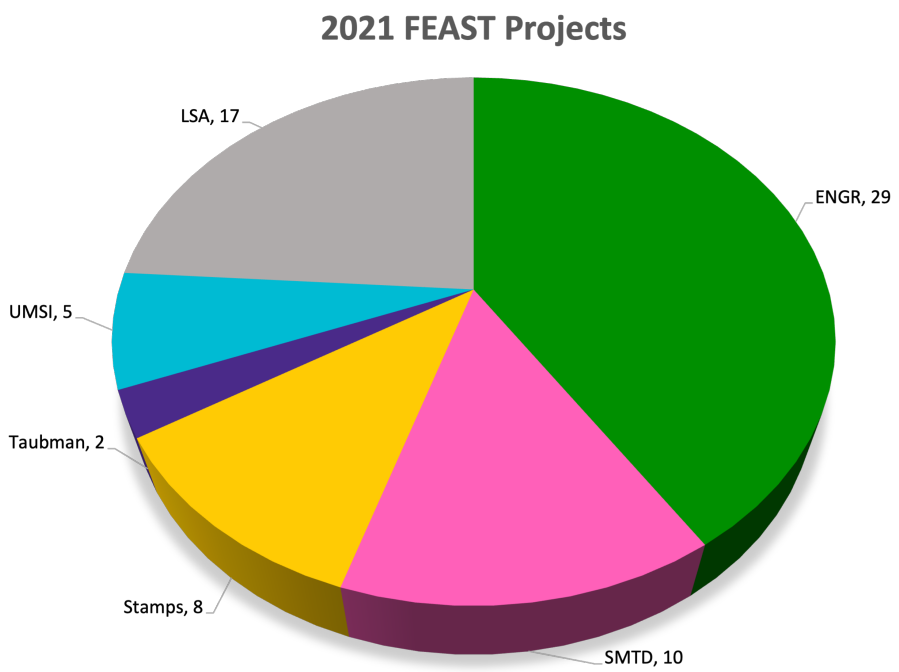


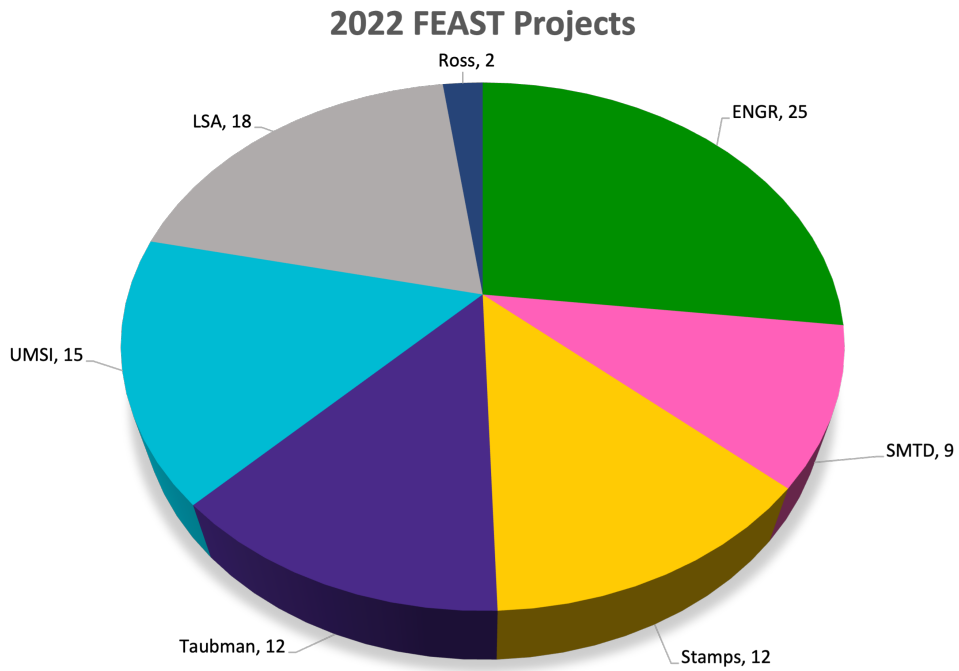
More 2022 Projects

More 2022 Projects

https://artsengine.engin.umich.edu/feast/

Student Participation Breakdown





Challenges

- **Faculty Expectations**
- **Faculty Recognition**
- **Incomplete/Insufficient Teams**
  - Apprentice level applicants
- **Homogeneous Teams**
- **Course Substitution/Competing Priorities**
- **Attrition**
- **Need for Summer Bridge Support**
- **Sabbaticals/Faculty Availability**
- **MDP Project Competition** (internships, career readiness, resume building, perception imbalance)
- **Meaningful Project Showcase opportunities**
- **Staff Capacity/Administration**
  - Transcript review
  - Overrides
  - Course Substitutions
  - IP Agreements
  - Development of Modules
  - Weekly/Monthly report regimen
  - Faculty Check-ins
  - Surveys/Evaluation
  - Purchasing/Spending
  - Documentation/Faculty Oversight

Outcomes & Highlights
The first 18 months

- **ArtsEngine**
  - Additional courses toward certificate/minor
  - Greater student/faculty impact
  - Increased funding through tuition sharing with schools and colleges
- **Students**
  - Unique research and educational opportunities
  - Credits toward ID minor, course substitutions
  - Connection and recommendations from unexpected faculty mentors
  - Scholarly citations, resume enhancement
  - Reflective practice, practice!
  - Summer research support

Outcomes & Highlights
The first 18 months

- **Faculty**
  - Recruited skilled and committed student research team
    - Access to students outside normal purview
  - Exploration of a discrete, new, or desired research project
  - Research project highlights
    - New Grant Funding – Internal and External
    - FEAST teams collaboration – SonicElegans Fall 2021
    - Prototype solar powered citizen space weather sensing system – Summer 2022
    - Mayo Clinic sleep data performance – Fall 2022
    - 2nd annual "Band to Welcome Spring" international synchronous musical performance/jam
    - LIDAR scanning/XR of Rackham Bldg, Hill Auditorium, Big House - https://artsengine.engin.umich.edu/feast/spatial-ideas-storytelling-gilpin/

Outcomes & Highlights
The first 18 months

- **University of Michigan**
  - Increased grant funding and faculty research support
  - Generation of new spin-off curricular offerings
  - a2ru webinar presentation – April 2022 ☺

Questions?

Thank you!

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