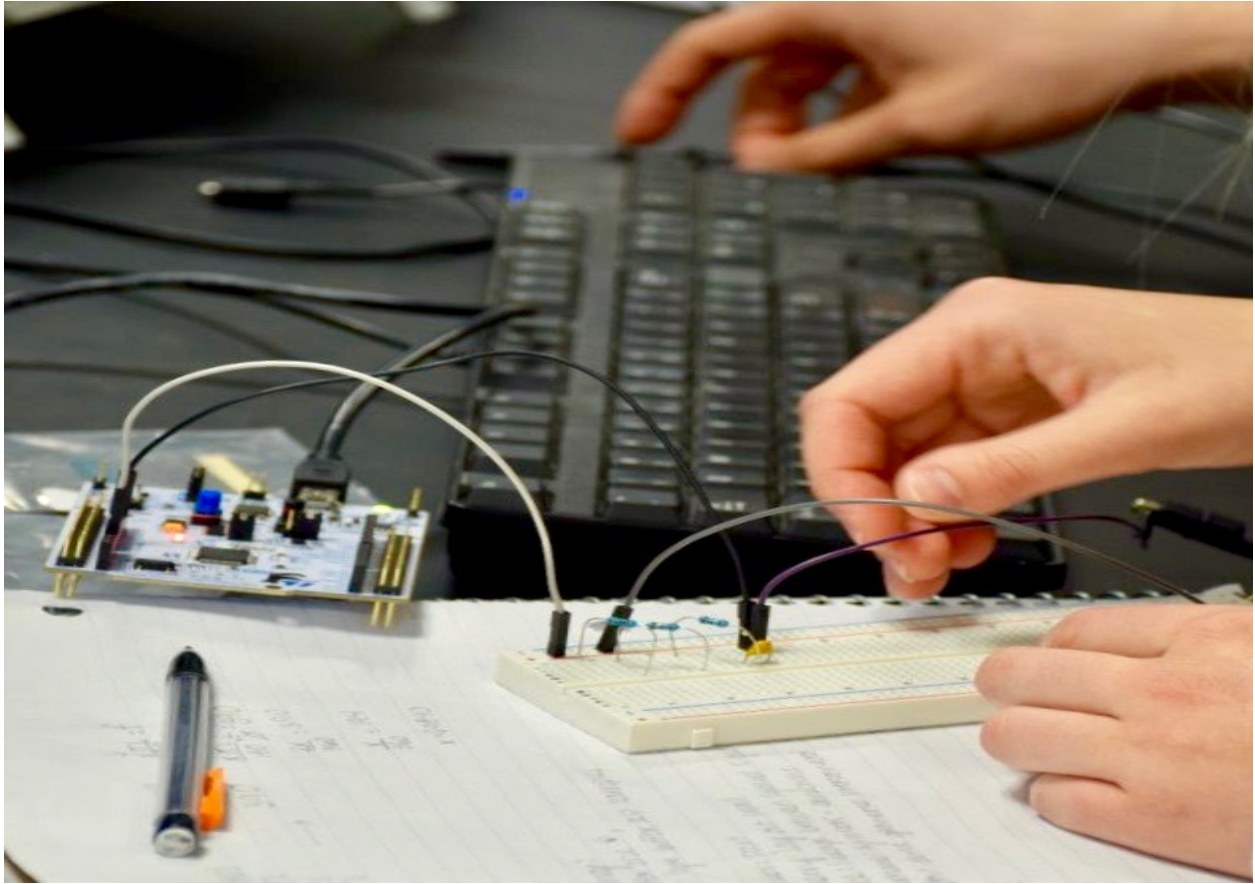# GUS GRISSOM TRAIL MONITORING PROJECT

SUSTAINING HOOSIER COMMUNITIES

2017-2018

A partnership between IU School of Informatics, Computing, & Engineering capstone students & the City of Mitchell

SUSTAINING HOOSIER COMMUNITIES

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SUSTAINING HOOSIER COMMUNITIES

Acknowledgements

This project was completed as a collaboration between IU School of Informatics, Computing, & Engineering (SICE) students completing their capstone project and the City of Mitchell as part of the 2017-2018 Indiana University Sustaining Hoosier Communities (IUSHC) initiative. IUSHC is a program within the IU Center for Rural Engagement (CRE).

This report represents original student work and recommendations proposed by the IU School of Informatics, Computing, & Engineering (SICE) capstone students for the City of Mitchell. The contents of this report represent the views of the IU School of Informatics, Computing, & Engineering (SICE) capstone students and do not reflect those of IUSHC, CRE, Indiana University, Lawrence County, or the City of Mitchell.

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IU **SUSTAINING HOOSIER COMMUNITIES**

About Sustaining Hoosier Communities

Indiana University Sustaining Hoosier Communities is an initiative that partners with a local community within south central Indiana to explore, understand, and resolve challenges and projects identified by the community. Based on a tested model for university/community engagement that has been successfully implemented by over 25 universities and their community partners, Sustaining Hoosier Communities is a yearlong collaboration between Indiana University and a single community partner.

Indiana University's faculty who opt in to Sustaining Hoosier Communities match their courses to the projects based on their areas of research, expertise, and teaching. Each course uses a cross-disciplinary approach to explore and solve sustainability issues identified by the community partner through project-based research. Faculty and community stakeholders agree before classes begin on a scope of work and deliverables for each class, and project liaisons are identified by the community and the university to coordinate this unified effort.

Sustaining Hoosier Communities is just one example of many types of community engagement Indiana University plans to pursue as part of the Center for Rural Engagement. By harnessing the research, expertise, energy, and service of Indiana University's faculty, staff, and students, Indiana University and our local partners work collaboratively to improve the health, prosperity, and vitality of southcentral Indiana.

To learn more about IU Sustaining Hoosier Communities, visit **www.shc.indiana.edu**.

To learn more about the IU Center for Rural Engagement, visit **www.rural.indiana.edu**.

Sustaining Hoosier Communities Project Process

Communities apply to partner with SHC	**SHC matches courses to projects**	**Faculty and students work on community projects**
SHC selects partner community	Community and SHC identify possible outcomes	Classes complete work and ame presentations to the community
Community identifies project ideas	Community and faculty develop and agree on scopes of work	All reports are compiled and presented to the community
Community identifies project leads and liaisons who will lend their time and talents to projects	SHC seeks resources for projects not matched with courses	The center can continue work with the community beyond SHC

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About the Course

IU School of Informatics, Computing, & Engineering (SICE) provides students the opportunity to complete a capstone project that involves solving a problem or challenge for a local individual or organizations under the guidance of a faculty advisor. Under the guidance of IUSICE faculty member Bryce Himebaugh, one student capstone group worked with the City of Mitchell's Parks & Tourism Department to design a mobile application that would provide users with a virtual tour between Gus Grissom's boyhood home, the Gus Grissom Monument, and the Gus Grissom Memorial in Spring Mill State Park. Throughout the spring 2018 semester, students provided a prototype of this application for the City of Mitchell and are currently refining this prototype for hopeful deployment during the following academic school year.

About the Gus Grissom Trail

Mitchell, IN proudly serves as the hometown of Gus Grissom, the second American to travel to space. The City of Mitchell's Parks & Tourism Department has expressed interest in creating an official pedestrian and bike trail that connects the Gus Grissom boyhood home, the Gus Grissom Monument, and the Gus Grissom Memorial in Spring Mill State Park. Not only would this proposed trail attract more visitors to the small town of Mitchell, but it would also increase the property value of neighboring homes and businesses as well as the physical activity opportunities for Mitchell residents. The mobile application designed by SICE capstone students would help monitor the use of this trail as well as allow visitors to locate specific trail markers on the application's interactive map and learn more about Gus Grissom at each stop.

The Project: Connecting Course & Community

IU School of Informatics, Computing, & Engineering (SICE) students completing their capstone project worked with the City of Mitchell's Parks & Tourism Department to design a mobile application that would utilize a potential Gus Grissom Trail that connects the Gus Grissom boyhood home, the Gus Grissom Monument, and the Gus Grissom Memorial in Spring Mill State Park. The application would provide a guided tour for these revered locations throughout Mitchell and provide insight into Gus Grissom's life, from growing up in a small, rural Indiana town to becoming the second American to travel to space.

The SICE capstone students designed a mobile application prototype that would allow visitors to find specific trail markers on the map and listen to informational tidbits about Gus Grissom's life at each stop. Not only would this enhance Mitchell's tourism by allowing the Parks & Tourism Department to receive real-time, updated visitor reports, but it could also provide an alternative transportation route for pedestrians and bikers and increase the physical opportunities for Mitchell residents.

The SICE capstone students are working with faculty member, Bryce Himebaugh, and the City of Mitchell's Parks & Tourism Department to refine this prototype for hopeful deployment during the following academic year.

Student Outcomes

- Designed a prototype for a mobile application that would monitor the use of the proposed Gus Grissom Trail in Mitchell, IN
- Gained exposure to patent, intellectual property, and copyright law essentials
- Utilized design analysis, experimentation, and mobile application software to create a mobile application prototype that catered to the specific needs of the City of Mitchell

Community Partner Outcomes

- Prototype of the mobile application that would enhance the use of the potential Gus Grissom trail and provide real-time, updated visitor and tourism reports
- Assistance in understanding how to monitor and use the mobile application to enhance the City of Mitchell's tourism initiatives
- Recommendations on how to utilize the mobile application to market the Gus Grissom Trail and attract more visitors to Mitchell, IN