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| |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | A black and white logo  Description automatically generated |  | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Hello Dr. Norman Leppla,  Thank you for applying to the **2024 Research Opportunity Seed Fund (ROSF)**.  We regret to write to you that the Office of Research is unable to provide funding for your project at this time.  The 2024 Research Opportunity Fund received 60 exceptional proposals submitted by the different colleges after their own internal selection. Those proposals were then reviewed by faculty panels of highly qualified reviewers. Funding recommendations were made after thoughtful and careful consideration. Funding recommendations were reviewed and approved by the Vice President for Research. 14 awards will be made in 2024.  We received dozens of exceptional and promising proposals this cycle but were unfortunately constrained by the limited availability of funds.  Reviewer comments on your proposal are attached. We hope you find them helpful. The complete list of awardees will be available soon on <http://research.ufl.edu/opportunityfund.html>.  We hope you will consider applying again in the future. Your application history can be viewed via the View Application button below.  For your reference, we have included feedback on your application that was submitted during the review process for the competition.  [View](https://nam10.safelinks.protection.outlook.com/?url=http%3A%2F%2Fufresearch.infoready4.com%2FCompetitionSpace%2F%23freeformCompetitionDetail%2F1927302&data=05%7C02%7Cncleppla%40ufl.edu%7C6a8f1ff37f3a436c06c708dcb0a87afb%7C0d4da0f84a314d76ace60a62331e1b84%7C0%7C0%7C638579484881142980%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=p0YfTVd4OfCPjP5Qy10aCNk%2BOi2jVqxIyE8o7kWKyWA%3D&reserved=0)    Feedback on Your Application  Proposal Review  Reviewer 1   |  |  | | --- | --- | | Comments | Rating | | **New Collaborations (20 points):**  The proposed collaboration presents a multidisciplinary approach to developing a new radar system for a particular parasitoid wasp: larra bicolor. The teaming is likely to yield unique insights and contribute to long-term funding potential. The PIs expertise and track record are suitable for this project as well.  One limitation is that the collaboration plan is not very clear, especially the radar development, deployment, data collection, AI-based behavioral modeling, etc. While the collective expertise is there it is not very clear how the tasks will be carried out (collaboration and management plans). | 15 | | **Novel Research (20 points):**  The proposed research will develop a prototype for harmonic radar - which seems to be a novel tool. The project identifies some general as well as specific applications of the new tool. Specifically, the new tool will enable faster or better behavioral modeling or tracking of small invasive species. Beyond that, it is not clear what types of research avenues it would contribute to or what expanded collaborations are anticipated as a result of these outcomes. | 16 | | **Meaningful Contributions (20 points):**  As indicated earlier, the collaboration and management roles are not clearly explained in the project. The collective expertise is there, but given the short timespan of the project, the involvement in terms of proposed research as well as funding allocations is not articulated. Looks like the Co-investigator Dr. Wang's PhD student at the ECE will be responsible for delivering the radar, and a MSc student will collect data throughout the project. The overall contributions from the team and joint experimental or deployment plans are missing. | 10 | | **Funding Potential (20 points):**  The new tool will be useful as a data collection tool for many future opportunities. The listed NSF and USDA ones seem very reasonable, while the other programs seem a bit far-fetched. | 18 | | **High Impact (20 points):**  The economic impact of the problem is clearly described. Some earlier prototypes of harmonic radar dating back to 2011 were presented, hence the innovativeness of the proposed research might be limited. Some aspects are quite exciting as research problems but are not focused on in the proposal. For instance, KF-based tracking of a large number of very small objects in real-time - seems like a challenging problem; novel solutions could have impactful applications in many domains. Instead of outlining algorithmic novelty or innovativeness, the proposal was more towards development, ie, building the radar as a data collection tool. | 14 |   Reviewer 2   |  |  | | --- | --- | | Comments | Rating | | **New Collaborations (20 points):**  This project brings together engineers and entomologists to tackle the pervasive challenge of tracking small, mobile insects. In this case, a wasp that can be used for the management of a destructive turf pest. While much work has been done in tracking larger insects, they propose to make the trackers smaller, which would open up this tool to many entomologists and ecologists who are interested in tracking smaller organisms/organisms on whom the previous tracking systems are too large to employ. This tool could be a game changer in the realm of arthropod integrated pest management. | 18 | | **Novel Research (20 points):**  The use of harmonic radar for tracking arthropod movement is not novel. However, the ability to use it the fashion described in this proposal is new for our field, particularly for the movement of smaller arthropods. Additionally, incorporation of AI and machine learning for the analyses and development of predictive models would be a significant advance for this type of research. | 16 | | **Meaningful Contributions (20 points):**  To succeed with this study in the proposed 2 year time frame, all collaborators will need to be avidly engaged in the research and provide feedback to each part of the team to update and refine their work.  The team has outlined future potential of the outcomes of their research- a potentially patentable tool that can be broadly applied for studying the movement of small organisms. | 18 | | **Funding Potential (20 points):**  The team did a thorough job in discussing future avenues of funding and included how the use of the tool developed from this program could be expanded into other systems/for other organisms. | 20 | | **High Impact (20 points):**  If successful, the tools that this research will deliver will be highly impactful within the realm of integrated pest management. I'm not certain about their claims for its utility in predicting movement of invasive species to predict routes of entry, but for organisms that are known in an area/released in an area, this tool could be very useful in understanding how they use the habitat and how they move/expand into new areas where they may not be established yet. | 15 | | | | |  | |