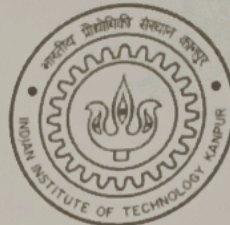




Students' Placement Office

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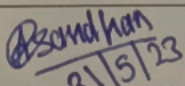
Project Verification Form



Title of the Project	Synthesis, characterization, testing, and detonation performance studies of fused pyrazole-based fluorescent energetic materials
Commencement Date	12.01.2023
Completion Date	01.05.2023
Project Supervisor	Dr. SRINIVAS DHARAVATH
Organization/Institution where the Project was accomplished	INDIAN INSTITUTE OF TECHNOLOGY, KANPUR
Project Description (You can use extra A4 sheets in case you run out of space however the extra sheets should also have the seal & signature of the Project Supervisor or the relevant authority)	
<p>Experts in the field of high-energy density materials putting continuous efforts to maintain a fine balance between stability and sensitivity using nitrogen-rich materials through sustainable development principles. Among the heterocyclic backbones, fused moieties are considered a significant backbone in energetic materials owing to their high energy content, dense nature, and stability. We have synthesized pyrazole-based fused compounds using commercially available affordable starting materials with excellent yields with high thermal stability, insensitivity, and moderate detonation performance to contribute to this development. The physicochemical and energetic properties suggest that the newly synthesised compounds can be a suitable replacement for benchmark explosives. During the internship period, Aniket helped on putting reactions and worked on compound isolation of the final compound as well as intermediates using various purification techniques like solvent extraction, filtration, etc. He has also monitored the reaction progress continuously through Thin Layer Chromatography. He learned the principle and usage of several laboratory instruments like rota evaporator, UV chamber, sonicator, weighing balance, and laboratory hot air oven. He is a quick learner with zeal towards science and research and has worked here with utmost seriousness in the given time.</p>	

By appending your signatures to this form you acknowledge and agree that:

- This form along with the certificate would serve as the official document between the project supervisor and Students Placement Office, IIT Kanpur regarding verification of the student's project work
- The student will provide additional information and documentation relevant to his/her project upon request by the Students' Placement Office
- The student has clearly defined his/her individual role in projects done in cooperation with other students, faculty, groups or company personnel.
- Incorrectly over-stating the reach, impact and/or quantitative/qualitative results of a project is unethical.
- In case of violation of any of the above rules, Students' Placement Office, IIT Kanpur reserves the right to take necessary action including de-registering the student from the placement season and reporting the misconduct to the Institute Authorities.

Submitted by:-	Project Supervisor Details:-
Name: SANDHAN ANIKET RAMDAS	Name: Dr. SRINIVAS DHARAVATH
Roll No: 210924	Designation: ASSISTANT PROFESSOR
Signature: 	Signature: 