

Science & Engineering Fair of Metropolitan Detroit

Tanay Panja

Received this Second Place Award for the project

*Novel Insights into the Role of Turbulent Fluxes Diabatic
Heating in Shaping the Spatio-Temporal Structure of the Hadley
Cell*



March 12, 2025

S-EAEV-013 (1774)

Kathleen A. Kitzmann

Kathleen A Kitzmann
Fair Co-Director

Timothy A. Fino

Timothy A Fino
Fair Co-Director

Science & Engineering Fair of Metropolitan Detroit

Tanay Panja

Received this First Place Award for the project

*Dementia AI: Computer Vision and AI Based Mobile App for
Dementia Screening*



March 15, 2023

Kathleen A. Kitzmann

Kathleen A Kitzmann
Fair Co-Director

Timothy A. Fino

Timothy A Fino
Fair Co-Director



NOAA's 2025 *Taking the Pulse of the Planet Award*

Presented to the science fair student whose research has demonstrated the principles and technical innovations that offer the greatest potential for an improved understanding of Earth's dynamic processes

Tanay Panja

of

Huron HS

Student

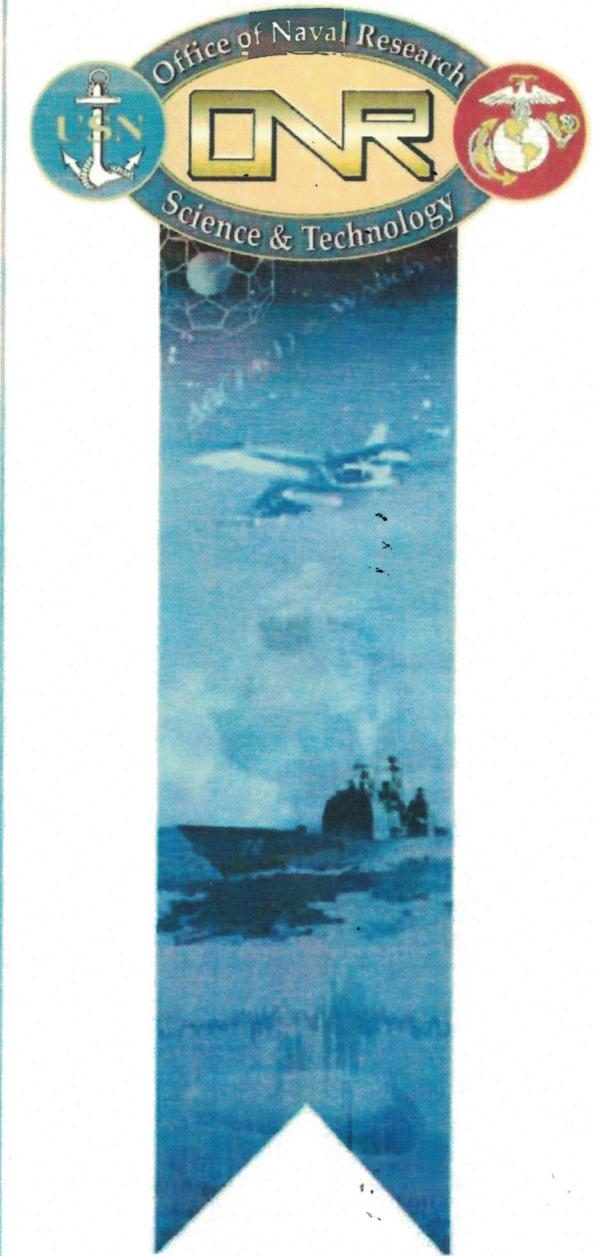
School

On this day April 5, 2025

Louisa Koch

Louisa Koch
NOAA Director of Education

Science Fair Director



The Office of Naval Research Naval Science Award

The United States Navy and Marine Corps take pleasure in recognizing

Tanay Panja

for Novel Insights into the Role of Turbulent Fluxes
Diabatic Heating in Shaping the Spatio-Temporal
Structure of the Hadley Cell

at the 68th Science and Engineering Fair of Metro Detroit

date March 12, 2025

Kurt J. Rothenhaus

*Kurt J. Rothenhaus
Rear Admiral, U.S. Navy
Chief of Naval Research*



2024 JAMES DOETSCH MEMORIAL SCIENCE FAIR SCHOLARSHIP WINNER

AS PRESENTED TO:

TANAY PANJA

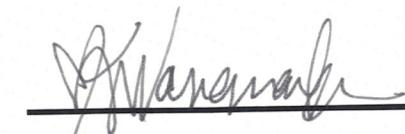
FOR THEIR PROJECT ON:

IOT-BASED AI AERATION FOR OPTIMAL MFC ENERGY GENERATION
AND WASTEWATER TREATMENT

DEMONSTRATING EXCELLENCE IN SCIENTIFIC THOUGHT,
CREATIVITY, THOROUGHNESS, SKILL, AND CLARITY



LARRY RUSSETTE
PRESIDENT, EMA



TRICIA WANAMAKER
EXECUTIVE DIRECTOR, EMA

CERTIFICATE of ACHIEVEMENT

IN RECOGNITION OF
OUTSTANDING EFFORT AND CONTRIBUTION
FOR ENVIRONMENTAL SCIENCE FAIR PROJECT

Third Place-Senior Division
ENVIRONMENTAL SCIENCE & ENGINEERING
SOUTHEAST MICHIGAN REGIONAL SCIENCE FAIR

Tanay Panja

IoT-based AI Aeration for Optimal MFC Energy Generation & Wastewater Treatment

March 20,
2024

*The Board of the East Michigan Chapter of the
Air & Waste Management Association*



AIR & WASTE MANAGEMENT
ASSOCIATION