# 2022 Texas Junior Academy of Science
## Physical Science & Engineering Division
## FINALISTS

## Memorial Student Center 2406 B

8:30 a.m.  **Shobhit Agarwal**, Reedy High School
(Computer Science)

*OmniDoc: A Multimodal Quantum Machine LearningApproach to Diagnosis, Prognosis, and Treatment Prediction for Neurodegenerative and Cancerous Diseases*

8:50 a.m.  **Otto Beall**, Plano East Senior High School
(Engineering II)

*Optimizing Solar Cell Metal Surface Geometries for Power Efficiency*

9:10 a.m.  **Arya Gurumukhi**, IB World School
(Engineering I)

*Supercapacitors: Improving Upon the Lithium-ion Battery Technology*

9:30 a.m.  BREAKa

9:50 a.m.  **Amitha Mandava**, Plano East Senior High School
(Physics/Math/Earth & Space Sciences)

*Traffic Counting System Using Machine Vision*

10:10 a.m.  **Kevin Sun,** Plano West Senior High School
(Chemistry)

*Transforming Organic Wastes into High Value Bioplastics*

**Participant free time.**

12:00 p.m.  **Awards ceremony MSC 2400**