11:00 AM – 12:15 PM  ONLINE POSTER SESSION 1

**Room 1**

**Environmental degradation of dolomite in the presence of sunlight and minerals**  
Author(s): Luka Zharkov  
NMT Chemistry Department

**Mechanofluorescent N-Aryl-2,3-Naphthalimide based dyes as structurally-sensitive probes for fluorescence lifetime characterization of 45 quasar galaxies**  
Author(s): Emri Canan  
NMT Chemistry Department

**Long-term effects of Ciment Kiln Dust (OKD) on erosion control of slopes**  
Author(s): Haider Kazemi  
NMT Civil Engineering Department

**Room 2**

**Geo-4 monopropellant electron beam simulations of runaway electrons in streamer discharges**  
Author(s): Joshua Deming  
NMT Physics Department

**Data-constrained simulations of the temperature inside a lightning channel**  
Author(s): Michael Acker  
NMT Geology Department

**Assessment of Wet Bulb Globe Temperature (WBGT) monthly changes in New Mexico – a case study**  
Author(s): Aram Abadjanabadi  
NMT Civil Engineering Department

**Room 3**

**Dolphin Jawphone phantom**  
Author(s): Todd VanDerWerf  
NMT Electrical Engineering Department

**Hybrid detachable amphibious UAV-UUV for marine environment applications**  
Author(s): Charlotte Dollin, Sarah Vann, and Morgan Marchick  
NMT Mechanical Engineering Department

**Fast and efficient removal of microparticles in water using acoustic waves**  
Author(s): Ivan Fuentes  
NMT Chemical Engineering Department

**Room 4**

**A study of abandoned mine lands in New Mexico**  
Author(s): Daniel Fuentes  
NMT Geology Department

**Braga's syngas for ammonia production: Water gas shift**  
Author(s): A. Lynn Richter  
NMT Chemical Engineering Department

**Braga's syngas scale-up**  
Author(s): Daniel Fuentes  
NMT Chemical Engineering Department

12:30 PM – 1:45 PM  ONLINE POSTER SESSION 2

**Effects of breast cancer lipid changes on membrane oxygen permeability**  
Author(s): Sreeyanka Naik  
NMT Chemical Engineering Department

**Comparing salt concentrations of different irrigation and nitrogen treatments**  
Author(s): Zihan Xiao  
NMT Chemical Engineering Department

**Simulation study of formation damage during hydraulic fracturing for shale gas reservoirs**  
Author(s): Ayesha Mallik  
NMT Chemical Engineering Department

**Optimization of Poly(3-alkylthiophene) crystallinity through alkyl side chain and annealing temperature variations**  
Author(s): Fatima Kadhim  
NMT Chemical Engineering Department

**Dispersion of nanoparticles in an optically transparent matrix design**  
Author(s): Rehema Cristina  
NMT Electrical Engineering Department

**Room 2**

**Dandelion inspired robots for climate monitoring and exploration on Mars**  
Author(s): Emily Mount  
NMT Mechanical Engineering Department

**Detecting the use of slang for deception in DarkWeb communications for organizing cyber attacks**  
Author(s): Sreeyanka Naik  
NMT Computer Science Department

**Using natural language processing to categorize cyber security related text**  
Author(s): Stephanie Adams  
NMT Electrical Engineering Department

**Room 3**

**Dispersion of nanoparticles in an optically transparent matrix design**  
Author(s): Adam Lopez, Christopher Catanach, and Braci Chester  
NMT Chemical Engineering Department

2:00 PM  ONLINE ORAL PRESENTATIONS

**Fluorescent lipid coated beads for the sensitive detection of disease biomarker Phospholipase A2 and Annexin 3**  
Author(s): Marian Rivas  
NMT Chemistry Department

**Social media marketing techniques in corporations and small businesses**  
Author(s): Juan Perez  
NMT Information Technology Department

**Tracking the spread of carbapenem-resistant pathogens in the Rio Grande**  
Author(s): Jessica Averett  
NMT Biology Department

**Hydrogen fuel cell**  
Author(s): Jakob Spiteri, Eman Catarci, and Allan Chudleigh  
NMT Mechanical Engineering Department

**Cooperative swarming fixed-wing drones with attachment capabilities: Bioinspiration and mutualism**  
Author(s): Kimberly McNair  
NMT Mechanical Engineering Department

**Utilizing drone technology to improve safety and productivity in underground mining**  
Author(s): Janice Robertson  
NMT Electrical Engineering Department

2:00 PM  CIVIL ENGINEERING DESIGN SHOWCASE

**2020 concrete canoe design team**  
Author(s): Lauren Donnelly  
NMT Civil Engineering Department

**NMT steel bridge design team**  
Author(s): Hannah Robinson  
NMT Civil Engineering Department