Indujaa Ganesh

PhD candidate, University of Arizona www.indujaa.com indujaa@email.arizona.edu

EDUCATION

PhD, Planetary Sciences, University of Arizona, Tucson	expected	2022
MS *(en route)*, Planetary Sciences, University of Arizona, Tucson		2020
MTech, Geoinformatics & Natural Resources Engineering, IIT Bombay		2017
BEng, Geoinformatics, Anna University, Chennai		2014

AWARDS & SCHOLARSHIPS

Amelia Earhart Fellowship, Zonta International	2021
Lunar and Planetary Laboratory Curson Education Plus Fund Award	2021, 2018
University of Arizona Galileo Circle Scholarship	2021, 2020
Venus Exploration and Analysis Group Travel Award	2019
Future Investigators in NASA Earth and Space Science and Technology	2019
University of Arizona Graduate & Professional Student Council Travel Grant	2018
Government of India Postgraduate Scholarship	2015
German Academic Exchange Service's (DAAD) WISE Scholarship	2013
Indian Academy of Sciences Summer Research Fellowship	2012

RESEARCH EXPERIENCE

Graduate Research Assistant, University of Arizona
- SHARAD mapping of volcanic terrains on Mars — Aug 2017 – Jul 2019
- Pyroclastic flow deposits on Venus — Jul 2019 – now

Exploration Science Summer Intern, Lunar & Planetary Institute
- Studies of potential landing sites for NASA's Artemis program — June & July, 2020

Graduate Research Assistant, IIT Bombay
- Geomorphology of Layered Deposits of Valles Marineris — July 2016 – May 2017

DAAD Summer Intern, University of Heidelberg
- LiDAR mapping of forests (LVISA project) — June & July, 2013

Summer Research Fellow, PRL, Ahmedabad
- Analysis of seasonal variations in Mars's lower atmosphere — June & July, 2012

SERVICE & PROFESSIONAL ACTIVITIES

International – Mars Ice Mapper, Measurement Definition Team — 2021– 2022
Part of the Early Career Group

Executive secretary on NASA review panels — 2020– now

Reviewer for Journal of Geophysical Research: Planets — 2020– now

Organizing committee, Lunar and Planetary Laboratory Conference — 2018– 2021

TEACHING

Graduate Teaching Assistant, University of Arizona — Fall 2018
PTYS 170B2 – The Universe and Humanity: Origin and Destiny

Graduate Teaching Assistant, IIT Bombay — Fall 2016
GNR 603 – Introduction to Principles of Remote Sensing

WORKSHOPS

NASA Planetary Volcanology Workshop, Hilo, Hawaii — 2019

Workshop on Geology and Geophysics of the Solar System, Petnica, Serbia — 2018

INVITED TALKS

Purdue University - Department of Earth, Atmospheric, and Planetary Sciences Crater Cafe — Feb 2022

University of California Santa Cruz - Institute for Geophysics and Planetary Physics Seminar. — Feb 2022

PUBLICATIONS

Ganesh, I., McGuire, L. A., and Carter, L. M. Modeling the dynamics of dense pyroclastic flows on Venus: insights into pyroclastic eruptions. Journal of Geophysical Research: Planets (2021). doi: 10.1029/2021JE006943.

McGuire, L. A., Youberg, A. M., Rengers, F. K., Abramson, N. S., **Ganesh, I.**, Gorr, A. N., Hoch, O., Johnson, J. C., Lamom, P., Prescott, A. B., Zanetell, J., Fenerty, B. Extreme Precipitation Across Adjacent Burned and Unburned Watersheds Reveals Impacts of Low Severity Wildfire on Debris-Flow Processes. Journal of Geophysical Research: Earth Surface (2021). doi: 10.1029/2020JF005997.

Ganesh, I., Carter, L. M., and Smith I. B. SHARAD mapping of Arsia Mons caldera. Journal of Volcanology and Geothermal Research (2020). doi: 10.1016/j.jvolgeores.2019.106748

CONFERENCE ABSTRACTS

Ganesh, I., Carter, L. M., and Henz, T. N. Radar Backscatter and Emission Models of Possible Pyroclastic Deposits on Venus. 53rd Lunar and Planetary Science Conference (2022). # 1771

Ganesh, I., Carter, L. M., and Henz, T. N. A radiative transfer approach to modeling polarimetric radar backscatter from possible pyroclastic deposits on Venus. AGU Fall meeting (2021). # 92514

Ganesh, I., McGuire, L. A., and Carter, L. M. Modeling the emplacement of pyroclastic density current (PDC) deposits on Venus: a comparison between concentrated and dilute PDC transport regimes. AGU Fall meeting (2021). # 92589

Hager, J., Ort, M. H., Henry, C. D., Silleni, A., and **Ganesh, I**. Using Anisotropy of Magnetic Susceptibility (AMS) to Determine the Flow Characteristics of a Pyroclastic Density Current: The Nine Hill Tuff, Nevada and California. AGU Fall meeting (2021). # 922399

Ganesh, I., Carter, L. M., and Henz, T. N. Radar backscatter models of possible pyroclastic deposits on Venus. 19th Meeting of the Venus Exploration Analysis Group (2021). # 8038

Henz, T., **Ganesh, I.**, and Carter, L, M. Measuring the Radar Properties of Pyroclastic Deposits in Eistla Regio, Venus. 52nd Lunar and Planetary Science Conference (2021). Virtual conference. # 2150

Ganesh, I., McGuire, L., and Carter, L. M. Dynamics of Dense Pyroclastic Flows on Venus – Insights into Pyroclastic Eruptions. 52nd Lunar and Planetary Science Conference (2021). Virtual conference. # 1218

Kumari, N. **Ganesh, I.**, Lang, A., Bretzfelder J., M., and Kring, D. A. Geological Diversity at Two Potential Landing Sites in the Lunar South Pole. 52nd Lunar and Planetary Science Conference (2021). Virtual conference. #1197

Bretzfelder J., M., Lang, A., **Ganesh, I.**, Kumari, N., and Kring, D. A. Geological Analysis and Possible EVA Targets for an Artemis III Landing Site Bounded by Shackleton and Slater Craters. 52nd Lunar and Planetary Science Conference (2021). Virtual conference. # 1148
McGuire, L. A. et al. (including **Ganesh, I.**). Extreme precipitation reveals impacts of a low severity wildfire on debris-flow processes. AGU Fall meeting (2020). # 736986

Ganesh, I., McGuire, L. A., and Carter, L. M. Modeling Deposition from Dense Pyroclastic Density Currents on Venus. 18th Meeting of the Venus Exploration and Analysis Group (2020). Virtual conference.

Ganesh, I., McGuire, L. A., and Carter, L. M. Pyroclastic Flow deposition on Venus. 51st Lunar and Planetary Science Conference (2020). Cancelled.

Ganesh, I., Carter, L. M., and Smith, I. SHARAD mapping of the Caldera of Arsia Mons. 50th Lunar and Planetary Science Conference (2019), The Woodlands, Texas, # 1859

Ganesh, I., Carter, L. M., and Smith, I. Subsurface Interfaces in the Arsia Mons Caldera - Observations from SHARAD. 49th Lunar and Planetary Science Conference (2018), The Woodlands, Texas, # 2807

Ganesh, I. and Porwal, A. A GIS Based Compilation of Morphometric Parameters of Valles Marineris ILDs. 48th Lunar and Planetary Science Conference (2017), The Woodlands, Texas, # 2324

Sarkar, R., Singh, P., **Ganesh, I.**, and Porwal, A. Origin of mass wasting features in Juventae Chasma, Mars. 47th Lunar and Planetary Science Conference (2016), The Woodlands, Texas, # 1876

Singh, P., Sarkar, R., **Ganesh, I.**, and Porwal, A. Origin of fluvial channels in the walls of Juventae Chasma: evidences of groundwater sapping? 47th Lunar and Planetary Science Conference (2016), The Woodlands, Texas, # 1878