UTSA
The University of Texas at San Antonio™

DATE:
April 24, 2020

TIME:
2:00-3:00pm

LOCATION:
via Zoom (link provided in email)

RESEARCH SEMINAR SERIES

NASA MIRO CAMEE

CAMEE

CENTER FOR ADVANCED MEASUREMENTS IN EXTREME ENVIRONMENTS

Phone:
(210) 458-4924
Fax:
(210) 458-4469
Email: camee@utsa.edu
Website:
www.utsa.edu/NASA-CAMEE/

PRESENTS:

Laboratory of Turbulence, Sensing and Intelligence System, Department of Mechanical Engineering, UTSA

The katabatic winds (> 30 m/sec) play a crucial role in the formation of polynyas and sea-ice production in the Ross Sea region. During the PIPERS (Polynyas and Ice Production and seasonal Evolution in the Ross Sea) program, high-resolution data were sampled to investigate the coupled ocean-atmosphere interactions over the prominent polynya regions in the Ross Sea, namely, the Ross sea polynya and the Terra Nova Bay polynya (TNB). Fortuitously, the data captured few katabatic events over the TNB. A comparison of seasonal variations between summer and autumn shows a significant change in the vertical stratification owing to the frequent katabatic events during the autumn season. We propose a high-resolution ocean model to simulate the observed seasonal variability of the TNB. This eddy-resolving model will be used to conduct a suite of experiments to investigate the oceanic response to varying atmospheric forcing. Most of the global reanalysis data have a poor spatial and temporal resolution to capture the katabatic winds. However, reanalysis datasets provide consistent and wider spatial coverage compared to observations. For this study, reanalysis data and observational data or a combination of both the datasets will be used to carry out the experiments.

In this presentation, details about the model and observations will be discussed by Dr. Ambica Behara, CAMEE Postdoctoral Fellow.

More details of Dr. Bhaganagar's Research: **https://kiranmalibu.wixsite.com/kb1utsa**