

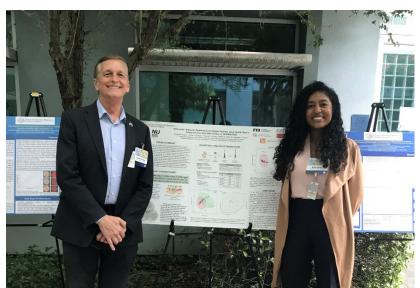
Student career funded by CARFS: Vidia Gokool

December 2022

The <u>Center for Advanced Research in Forensic Science</u>, a NSF-funded Industry University Cooperative Research Center (IUCRC) at Florida International University, funded the sample set collection for my research project "Multivariate Regression Modelling for Gender Prediction Using Volatile Organic Compounds from Hand Odor Profiles via HS-SPME-GCMS." This research was performed in the Dr. Kenneth G. Furton group and consisted of data mining an existing dataset of human hand odor samples that was collected due to CARFS' support to investigate class characteristics as expressed through human hand odor.

This work was an off shoot of a CARFS-funded project which allowed for data mining the revisitation of the collected samples allowed for the analysis of the effects of declared gender on human scent expression. This work noted that human hand odor samples could be used to categorize a donor's gender using Headspace Solid-Phase Microextraction Gas Chromatography Mass Spectrometry (HS-SPME-GCMS) analysis.

Although the project in itself was not a directly proposed CARFS research topic, the current CARFS members encouraged me to attend the 2022 CARFS 10th IAB Meeting and share the findings of this work with the current members.



Picture 1. Vidia Gokool (Right) with Dr. Kenneth G. Furton (Left). Gokool presenting her research results at the CARFS Annual Meeting.

The 2022 CARFS Meeting was hosted by <u>Lawrence Livermore National Laboratory</u> (LLNL) and my attendance allowed me to reconnect with an old internship host, the <u>Defense Forensic Science Center</u>, and make new contacts among the CARFS members. This newly expanded

network informed me of new opening at LLNL and ultimately aided me in securing an offer for a post-graduate position at LLNL.

In all, this work was presented at:

- (1) American Academy of Forensic Sciences-Center for Advanced Research in Forensic Science Reception, Seattle, WA, February 23, 2022
- (2) American Academy of Forensic Sciences-Center for Advanced Research in Forensic Science Reception, Seattle, WA, February 23, 2022.
- (3) The Annual Visitation Day Poster Presentation, Florida International University, Miami, FL, March 11, 2022.
- (4) GFJC 11th Annual Forensic Science Symposium, Virtual, June 6-10, 2022.
- (5) Center for Advanced Research in Forensic Science (CARFS) 10th Industry Advisory Board (IAB) Meeting, Lawrence Livermore National Laboratory (LLNL), Livermore, CA, June 16, 2022.
- (6) The Power of Scents Workshop: Olfactory research from innovation to application and validation, Morogoro, Tanzania, June 21, 2022.

The research funded by CARFS has resulted in six presentations and one submitted manuscript. Beyond growing my portfolio, my involvement in CARFS has expanded my network of peers and has led to new research and employment opportunities for me beyond graduation.

By: Vidia Gokool ------2022-12-19

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