NAME, First Name: KOVILAKAM, Mahesh
Affiliation: Adnet Systems Inc/NASA Langley Research Center, Hampton, USA

Role in the project:

- **Team leader**
- Expertise in space-based and in situ measurements of stratospheric aerosols and their application in developing Global Space based Stratospheric Aerosol Climatology (GloSSAC).
- Tasks 1 and 2

Current position: Senior Research Scientist at ADNET/NASA Langley Research Center (2019-present).

Former Position(s):
Postdoctoral research associate at NASA Langley Research Center (2017-2019), Postdoctoral research associate at Oak Ridge National Laboratory (ORNL) (2014-2017).

Education:
PhD Atmospheric Sciences, 2012, MS Space and Atmospheric Sciences, 2004.

Services in National and/or International Committees (most recent nominations):

- Member, scientific steering committee for Stratospheric sulfur and its role in Climate (SSiRC), 2022-present.
- Contributing author, UNEP/WMO Ozone assessment report, 2022.
- Stakeholder, Coupled Model Intercomparison Project Phase 7 (CMIP7) forcing task team, 2023.

Honors:
Antarctic Service Medal from National Science Foundation (NSF) for service in Antarctica in recognition of valuable contributions to exploration and scientific achievement, 2011.

Selected Publications:

Knepp, T. N., Thomason, L., **Kovilakam, M.**, Tackett, J., Kar, J., Damadeo, R., and Flittner, D.: Identification of smoke and sulfuric acid aerosol in SAGE III/ISS extinction spectra,Atmos. Meas. Tech., 15, 5235-5260, https://doi.org/10.5194/amt-15-5235-2022, 2022.

Thomason, L. W., **Kovilakam, M.**, Schmidt, A., von Savigny, C., Knepp, T., and Rieger, L (2020): Evidence for the predictability of changes in the stratospheric aerosol size following volcanic eruptions of diverse magnitudes using space-based instruments, Atmos. Chem. Phys., https://doi.org/10.5194/acp-2020-480, (accepted) .

Kovilakam, M., Thomason, L., Ernest, N., Rieger, L., Bourassa, A., and Millan, L. (2020): The Global Space-based Stratospheric Aerosol Climatology (version 2.0): 1979-2018, Earth Syst. Sci. Data, 12, 2607-2634, https://doi.org/10.5194/essd-12-2607-2020.

Deshler, T., B. Luo., **M. Kovilakam.**, T. Peter., L. Kalnajs (2019) : Retrieval of aerosol size distributions from in situ particle counter measurements: instrument counting efficiency

and comparisons with satellite measurements., Journal of Geophysical Research-Atmospheres, 124, doi:10.1029/2018JD029558

Kovilakam, M., S. Mahajan, R. Saravanan, and P. Chang (2017): Climate impacts of CALIPSO-guided corrections to black carbon aerosol vertical distributions in a Global Climate Model, Geophysical Research Letters , 44, doi:10.1002/2017GL074652

Allen, R.J., and **M. Kovilakam** (2017): The role of natural climate variability in recent tropical expansion, Journal of Climate, 30, doi:10.1175/JCLI-D-16-0735.1

Kovilakam, M., and S. Mahajan (2016): Confronting the `Indian summer monsoon response to black carbon aerosols' with the uncertainty in its radiative forcing and beyond, Journal of Geophysical Research - Atmospheres, 121, doi:0.1002/2016JD024866

Kovilakam, M., and S. Mahajan (2015): Black carbon aerosols induced Northern Hemisphere tropical expansion, Geophysical Research Letters, 42, 4964-4972, doi:10.1002/2015GL064559