

Virginia Tech MEMS Laboratory: Micro Analytical Chemistry Thrust

Several Postdoctoral Associate positions are available at VT MEMS Laboratory (Director: Dr. Masoud Agah) to work on a transdisciplinary project to develop an *intelligent Wearable Analyzer for Vapor Exposure (iWAVE)*, which is a highly advanced micro-engineered gas chromatography (μ GC) instrument for environmental monitoring. For more information about our research in micro analytical chemistry, please visit: <http://agah-lab.org>

Qualifications:

Candidates must have a Ph.D. in engineering or (analytical) chemistry and should have demonstrated research competency in any of the following categories:

(Opportunity 1)

Analytical and micro analytical chemistry with emphasis on GC, adsorption and separation sciences, stationary phase coating/development, portable/MEMS-enabled gas chromatography

(Opportunity 2)

μ GC, MEMS fabrication, integrated microsystems for gas analysis, analog/digital electronics, embedded system development by integrating microcontrollers, sensors, and actuators, co-hardware/software design (in collaboration with SePAC: Security and Power Aware Computing lab directed by Prof. Nazhandali).

Responsibilities:

The postdoctoral associates in these positions will work as part of a team/independently to conduct research for iWAVE development. (Additional) Responsibilities include:

- Plan and conduct research.
- Assist with grant applications.
- Coordinate activities with other members of the VT MEMS lab and with other collaborators.
- Supervise students as needed.
- Pursue research goals with routine consultation but limited supervision.
- Assist in design, execution, and interpretation of research projects to gain practical experience in the field.
- Prepare professional presentations, reports, and publications.
- Engage in collaborative work with peers to achieve research objectives.

Qualified applicants must submit a letter of application addressed to Dr. Masoud Agah (indicate the Opportunity Number), a curriculum vita, a research statement (not to exceed two pages), a list of at least three references, and a copy of two of their best journal publications (preferentially first author publications) electronically to jobs.vt.edu to posting number **SR0190021**. Please follow carefully the instructions found on the employment website regarding the application submission process. Unfortunately, we are unable to accept paper applications. Paper or electronic applications sent via e-mail cannot be considered. Review of applications will begin immediately and will continue until the positions are filled with appropriate candidates.

Applications from women and other underrepresented populations in engineering are especially encouraged. Virginia Tech has a program designed to support the retention and advancement of female faculty; see <http://www.advance.vt.edu>. Individuals with disabilities desiring accommodation in the application process should notify K. Atkins, ECE Dept, (540) 231-4136 or

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TDD/PC 1-800-828-1120 or Voice 1-800-828-1140. Virginia Tech is an Affirmative Action/Equal Opportunity Employer.

Keywords: MEMS, system integration, microfluidics, gas chromatography, electronics, wearable sensors.