The Science and Engineering Division of the National Federation of the Blind and the National Association of Blind Students are presenting a joint Zoom conference on how blind college and graduate students, and blind professionals, are succeeding in courses and Careers to do with science, technology, engineering, and mathematics. The Zoom conference link will be the standard NABS Zoom link shown at the bottom of this message. The call will occur at 9 PM EST through 10 PM EST on Sunday, February 27, 2022.

Topics will be of interest for blind students in middle school, high school, college and graduate school and professionals. Parents of blind school-aged children and educators are also welcome.

Currently, the scheduled speakers, topics, talk descriptions, and speaker introductions, are:

# **Speaker:** Venkatesh Chari

**Title:** the use of the Graphiti Tactile Graphic Display for the study of STEM subjects

**Description:** The Graphiti represents a breakthrough in non-visual access to dynamic graphical information such as charts, drawings, flowcharts, floorplans, images and photographs, through an array of moving pins without the need for specialized software. A blind user is now able to view and create graphics in digital form simply by drawing with her finger, store them into a computing device, review and edit them, and exchange such graphics with others. With its ability to interface with computers, phones and equipment such as microscopes and telescopes, the Graphiti provides instant tactile access to all forms of graphical information. In the classroom, the Graphiti provides the ability to access textbooks with graphical material. It also enables blind students to actively participate in inclusive classrooms and for the first time, visualize the smartboards used in mainstream classrooms. Practical applications of the Graphiti in STEM education and scientific research will also be discussed.

**Speaker Introduction:** With a background in Electrical Engineering, Venkatesh Chari has worked for over 25 years in the development of technologies involved in mobile and assistive technology products, in roles spanning engineering, management and strategic marketing. At Orbit Research, his work has included the development of the Orbit Reader 20, the world’s first affordable refreshable braille display and the Graphiti Interactive Tactile Graphic Display.

# **Speaker:** Alfred D'Agostino

**Title:** The Challenges That Students and Professionals Will Face in Chemistry, and How to Overcome Them

**Description:** To advance through the undergraduate chemistry curriculum or be successful in taking chemistry classroom, online and laboratory instruction to support other programs, it is necessary to learn via symbolic, visual, and spatial means. This is a difficult, but not insurmountable obstacle for blind and low-vision students and professionals. In this presentation, the following will be discussed: What to expect in the chemistry curriculum; How to anticipate technology needs; Preparing a learning strategy; How to locate resources; and how to be an advocate and realize success.

**Speaker Introduction:** Dr. Alfred D’Agostino’s personal and professional activities overlap his interest in promoting accessibility in science lab instruction for blind/ low-vision (BLV) students. Dr. D’Agostino non-visually conducts his teaching and professional activities. In September 2021, he published Accessible Teaching and Learning in the Undergraduate Chemistry Course and Laboratory for Blind and Low-Vision Student in the Journal of Chemical Education. He has facilitated ‘hands-on’ chemistry experiments for college students and adults at the National Federation of the Blind’s Louisiana Center for the Blind and at the Colorado Center for the blind using ‘speech-enabled’ probe ware. In 2022, Professor D’Agostino will present a Symposium at the Biennial Conference on Chemical Education hosted by the American Chemical Society titled Including the Blind in Chemistry –Making Learning and Instruction Accessible. At conferences where he presents to faculty colleagues, he highlights the access technologies (including tactile graphics) that can assist BLV students in doing independent work in the least restrictive learning environment.

Dr. D’Agostino is Professor Emeritus of Chemistry, has served as a chemistry department chairperson, has taught analytical and physical chemistry at the graduate level at various institutions (he has graduated 2 Ph.D. students), routinely gives conference presentations, is involved in chemical education research, and currently teaches at the undergraduate level. His research has been in surface science and interface analysis. His accomplishments include: a post-doctoral fellowship at Lawrence Berkely Laboratory, Faculty Research Fellow with the Air Force Office of Scientific Research at Wright Laboratory, Faculty Research Fellow at NASA’s John Glenn Research Center and at the Goddard Space Flight Center. Dr. D’Agostino was also Visiting Research Professor of Chemistry at Johns Hopkins University where his work was supported via a National Science Foundation grant.

# **Speaker:** Charles Vanek

**Title:** From Entry Level to Senior Leader, perspectives on being blind in Corporate America

**Description:** Get insightful perspectives as a blind individual in a corporate setting. From what to expect in interviews through growing your career. As well as what I wish I had done better. You’ll find that the most important aspect of any job is managing expectations, including your own.

**Speaker Introduction:** Charles Vanek has over 20 years of experience in Software Engineering with the majority of that time being in management. He started at a small company, eWatch, in 2000 as an entry-level data collection & processing manager and has grown to the position of Senior Director of Engineering for Cision’s Distribution platform.

Charles has led ground up custom-built application development to on-boarding SaaS systems such as Salesforce.com. In his career he’s found that putting people first leads to the best outcomes for the products produced but has also come to acknowledge & balance the needs of businesses in competitive industries on the global stage.

If you have any questions, please contact Louis Maher (713-444-7838, ljmaher03@outlook.com).

-----

# Join Zoom Meeting:

February 27, 2022, 9 PM EST

<https://zoom.us/my/blindstudents>

Meeting ID: 467 883 3687

One tap mobile

+13017158592,,4678833687# US (Germantown)

+13126266799,,4678833687# US (Chicago)