The Science and Engineering Division of the National Federation of the Blind Annual

Business Meeting Minutes for July 16, 2020

To become a registered member of the Science and Engineering division of the NFB visit "<http://www.nfb.org/divisiondues>".

A meeting of the Science and Engineering Division of the National Federation of the blind (SEDNFB) was held, online, by Zoom, on Thursday, July 16, 2020. Our official National Federation of the Blind (NFB) host was Seth Lamkin. Most of the Zoom logistics of this meeting were handled by the meeting's co-hosts: Vice President Ashley Neybert and volunteer Carolyn Gardner. Most of the votes during this meeting were carried out by a voice vote except for board position two which was handled by counting raised hands.

The meeting was called to order by President John Miller at 3:00 p.m. Eastern Daylight Time (EDT).

Several program items were presented, after which President Miller called the business meeting to order at 4:29 P.M.

# Primary Interest Survey

Harry Staley had provided an SEDNFB annual meeting registration form at

"<https://docs.google.com/forms/d/e/1FAIpQLSeGcP8A2ye0aiwlRPCnDNyur24vD8odADUEhkQ2nb-hIeXEVQ/viewform>".

Among other things, this form asked for attendee's primary field of interest. President Miller summarized the "primary field of interest" results.

# Minutes

The membership agreed that the minutes from the SEDNFB 2019 business meeting need not be read since the minutes had been distributed by e-mail. The minutes were approved.

# Treasury Report

The membership agreed that the treasury report, for the financial year starting on July 1, 2019 through June 30, 2020, need not be read since the treasury report had been distributed by e-mail. On July 1, 2020, the SEDNFB general fund treasury balance was $610. The treasury report was approved.

Notes:

The NFB will start handling the money for divisions who are interested in this service. The SEDNFB will take advantage of this service. WE are in the process of transferring the SEDNFB treasury to the NFB.

# Announcements

Alfred Maneki, the SEDNFB treasurer since 2007, announced that he is retiring as treasurer this term. Al's final action will be to transfer the SEDNFB treasury to the NFB. President Miller thanked Al for Al's work.

President Miller appointed Maureen Hayden as the SEDNFB contact to Life Sciences.

# Elections

Since 2020 is an even-numbered year, elections were held. There are four officers and two Board members. Elected were: John Miller, President; Ashley Neybert, Vice-president; Louis Maher, Secretary; Harry Staley, Treasurer; Nathanael Wales, Board position one; and Jamie Principato-Crane, Board position two.

# Future Presentations

President Miller asked the meeting attendees if they would like to give a ten-minute talk, remotely, to the division, either in the upcoming fall or spring. Anyone who is interested in giving such a presentation can write to president Miller at ([johnmillerphd@hotmail.com](mailto:johnmillerphd@hotmail.com)). During the meeting, the following individuals volunteered to give a talk:

Matthew Duffell-Hoffman

Kevin Fjelsted

Jene Kim

Newton Nguyen

Kennedy Stomberg

Harry Staley

Presentation volunteers will be contact in August 2020 to check their availability.

# Scholarship

The Science and Engineering Division and the Computer Science Division are raising funds for a $3000 or $5000 "Science Technology Engineering and Mathematics" (STEM) scholarship given by the NFB, to a worthy student at the NFB convention. In 2020, we were able to raise $3,000 for this scholarship.

Please consider donating to the NFB towards this scholarship.

To donate:

There are two ways to donate to the NFB STEM Scholarship: one method is online, and the second method is by mail.

If you wish to make an online donation: go to

<https://nfb.org/scholarships>

and activate the "Donate" link. Fill out the required fields. On the "Contribution Note" field please enter "STEM Scholarship". Once your donation has been submitted, you will receive an automatic acknowledgment of your donation. Please forward this donation acknowledgement to John Miller (Johnmillerphd@hotmail.com) so that he can track our progress towards our funding goal.

To donate by mail: Please make a check payable to NFB.

On the memo line write STEM Scholarship.

Mail the check to

NFB accounting/scholarship

200 East Wells St. at Jernigan Place

Baltimore, MD 21230.

Please make your contributions by March 1, 2021 so that your contributions can count towards the 2021 STEM Scholarship.

As of July 16, 2020,the scholarship fund had a balance of $1460 towards the 2021 STEM scholarship.

# Presentations

Below is a list of talks that were given during the 2020 SEDNFB meeting. Available abstracts are given after the Adjournment item.

Working in Science and Engineering Efficiently – John Miller (Johnmillerphd@hotmail.com)

Chemistry on The Web Project – Cary Supalo, Educational Testing Service (csupalo@ets.org)

Exploring and Understanding the Changes Affecting Our Oceans – Maureen Hayden (haydenmaureen11@gmail.com)

College and Graduate School Blindness Accessibility Review Project – Don Winiecki (dwiniecki@boisestate.edu)

The Peridot, A New Multi-Line Braille, and Tactile Graphics Tablet – Dave Schleppenbach, Tactile Solutions (dave.schleppenbach@gmail.com)

Advocating the College Board for Remote Blind-Accessible Tests – Nic Spohn (nspohn0@gmail.com)

Joining the Science and Engineering Division and E-mail List

If you are interested in joining the NFB Science and Engineering division, please fill out the "division registration" form at " <http://www.nfb.org/divisiondues>". The dues are $5 a year.

Note that the "division registration form" has a field through which you can donate to the divisions STEM scholarship discussed above. If you donate using this form, please enter "STEM Scholarship" in the contribution note. Once your donation has been submitted, you will receive an automatic acknowledgment of your donation. Please forward this donation acknowledgement to John Miller (Johnmillerphd@hotmail.com) so that he can track our progress towards our funding goal.

If you wish to join the SEDNFB e-mail list, go to "nfbnet.org", open the list of NFB e-mail groups, and search for "NFB Science".

# Adjournment

The division meeting adjourned at 5:18 P.M.

Respectfully submitted,

Louis Maher, Secretary

Science and Engineering Division of the National Federation of the Blind

Phone: 713-444-7838

E-mail [ljmaher03@outlook.com](mailto:ljmaher03@outlook.com)

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# Available Talk Abstracts

Maureen Hayden

Exploring and Understanding the Changes Affecting Our Oceans – Maureen Hayden

Science Without Sight: Research from a Different Perspective

The sea, the final frontier, these are the voyages of my career, to explore and understand the changes affecting our oceans, and to boldly go where few blind  
women have gone before. In this talk I will discuss my research, barriers and challenges I have faced in the STEM field, and the elation that comes with  
making a new discovery.

Don Winiecki

College and Graduate School Blindness Accessibility Review Project

Report on SEDNFB progress toward producing and issuing a survey to post-secondary students and professionals in STEM fields that allows us to:  
list of 6 items  
1. identify overall trends in students' and professionals' experiences with respect to accessible content;  
2. identify and rate the impact of different barriers (negative) and drivers (positive) influencing student and professional success;  
3. identify and rate the importance of different kinds of accessible media for students and professionals in STEM disciplines;  
4. identify and rate the impact of different kinds of support systems on the success of students and professionals in STEM disciplines;   
5. provide prescriptive advice to institutions on how to improve accessibility for STEM students and professionals and in turn improve organizational performance;  
and  
6. provide students and significant stakeholders with information that can help them make decisions about what to study, and where to study.  
list end  
NOTE: The survey will not be a "one off" effort. It will be an ongoing project that provides continuous information to stakeholders in accessibility of  
STEM to students and professionals.

Dave Schleppenbach

The Peridot, A New Multi-Line Braille, and Tactile Graphics Tablet

Tactile Solutions is the creator and IP holder of Peridot, a revolutionary new multi-line Braille and tactile graphic tablet.   
Peridot is a tactile display that allows readers to access Braille more naturally and experience revolutionary graphical capabilities. Sixteen 24-cell-lines of  
electronic Braille cells enable students, professionals, and leisure readers alike to easily navigate long equations and access technical diagrams. Peridot’s  
powerful software offers advanced, easy-to-use tools that improve STEM education, reduce workloads, and enable adaptive standardized testing.   
  
Key Attributes:   
\* Full-page refreshable Braille display that replaces paper Braille with precision electronic cells that use standard Braille size, spacing, and height.  
\* Dynamic graphical capabilities enable interactive, animated tactile features that have never before been successfully brought to market.  
\* Modular, replaceable cells reduce repair time and costs, and web-based support tools enable remote calibration to fix minor hardware issues.  
  
Applications for Learning and Productivity  
  
E-Reader  
Download and display books and documents in a full range of formats (including BRF, PDF, and EPUB).  
  
Graphing Calculator  
Duplicates the functions of a traditional scientific calculator, but with a tactile output that can be panned, zoomed, and highlighted.  
  
Image Viewer  
Provides new ways to learn using animated, highlighted, and interactive images that can demonstrate chemical reactions, electrical current flow, geographical  
events, and other complex subjects.