“This article is reprinted with permission from the November-December 2019 issue of TR News, the bimonthly magazine of the Transportation Research Board.” 12
A Short History of TRB
(reprinted with permission from the November-December 2019 issue of TR News, the bimonthly magazine of the Transportation Research Board.)

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Membership Application and Advertising Rates are also on the website: www.roceng.org.

news of the...
President’s Message

Joseph Dombrowski, PE
Retired M/E Engineering
RES President
2018 - 2020

It is the beginning of April as I write this and it looks like spring has arrived. It was nice in Orlando in March, but too hot for a Yankee. Please verify if events are still scheduled with the official source before attending because of COVID-19.

We have some outstanding networking events planned Corona virus not-withstanding. Please see the announcements elsewhere in the magazine for details.

The Gala scheduled for April 18, 2020 has been cancelled due to Corona virus fears. The Engineer of the Year, Young Engineer of the Year, Finalists for Young Engineer of the Year, the Engineers of Distinction and our college and high school scholarships selections have been made and will be awarded at a time to be determined. Stand by for details.

The Engineering Symposium (PDH Fest) is rescheduled for September 22, 2020 from April 28, 2020 also due to Corona virus fears. The re-planning effort is underway (thank you Chris DeVries). We will have sponsors but no vender venue this year at the Riverside Convention Center. An always, parking will be free, and 7 PDHs and a free lunch are available at a very modest fee. Help is always appreciated but we will especially need registration volunteers.

Registration is planned to open ~August 1, 2020. Additional details regarding the rescheduled event will follow.

As part of end of our year-end process, we were looking for nominations for our Board of Directors! Thank you to those who have stepped up.

Our tutoring and Science Fair effort at Dr. Walter Cooper Academy were thrown into a tizzy with the Corona virus and recent layoffs instituted by the Rochester City School District; an effort to get it back on track in the fall is ongoing unless the virus continues to interfere.

If you have any concerns or input, or feel the need to volunteer for anything, feel free to contact the RES via the website at roceng.org or me directly at jdombrowski3@rochester.rr.com. As always, I hope to see you at one of our RES events, or the Symposium on September 22, 2020.

Joe Dombrowski
RES President

MAY 2020 The ROCHESTER ENGINEER | 3
NOTICE TO ALL MEMBERS OF
THE ROCHESTER ENGINEERING SOCIETY
Published pursuant to Article IX, Section 1 of the Constitution

Pursuant to Article VII, Section 9 of the Bylaws to the Constitution, the Nominating Committee of, Mike Triassi, chair and Joseph Dombrowski, PE, co-chair reported a slate of officers for the 2020-2021 RES year.

Selected by the Nominating Committee for the designated offices are:

PRESIDENT (2020-2022)
GREG T. GDOWSKI, PhD
Executive Director, Associate Professor
Department of Biomedical Engineering, University of Rochester

FIRST VICE PRESIDENT (2020-2022)
MICHELLE SOMMERMAN, PE
Project Engineer - Mechanical
Bergmann

SECOND VICE PRESIDENT (2020-2022)
DENNIS ROOTE, PE
Owner, CDE Engineering & Environment

TREASURER
ANDREW C. HIRSCH
Retired

DIRECTOR (Term Ending 5/31/2022)
DANIEL WEAVER
Mechanical Engineer
Optimation Technology, Inc.

DIRECTOR (Term Ending 5/31/2021)
RICHARD E. RICE, Eng.
Facilities Business Development
Erdman Anthony

DIRECTOR (Term Ending 5/31/2021)
NEAL J. ILENBERG, PE
Principal Engineer, Rail Safety Consulting

DIRECTOR (Term Ending 5/31/2021)
KENTON G. HINES
Financial Advisor, Merrill Lynch

DIRECTOR (Term Ending 5/31/2022)
BRETT C. ELIASZ, PE
Disipline Leader - Electrical
Bergmann

DIRECTOR (Term Ending 5/31/2022)
STEVEN W. DAY, PhD
Department Head, Biomedical Engineering
Rochester Institute of Technology

DIRECTOR (Term Ending 5/31/2022)
NANCY CRAWFORD
Senior Program Manager
Optimation Technology, Inc.

DIRECTOR (Term Ending 5/31/2022)
MIKE KURDZIEL, PHD
Director, Engineering, L3Harris

DIRECTOR (Term Ending 5/31/2021)
JOSEPH DOMBROWSKI, PE
Past President who will serve as a member of the Board of Directors, pursuant to Article VIII, Section 2 of the Constitution is:

PAST PRESIDENT (2020-2022)
Retired

M/E Engineering, P.C.

Pursuant to Article IX, Section 2, of the Constitution, additional nominations may be made by a petition signed by at least 10 VOTING members. Such a petition, together with a written acceptance from each nominee, must be filed with the RES Administrative Director no later than 12:00 noon on May 8, 2020. If there are additional nominations, ballots will be mailed to all members in good standing and ELIGIBLE to vote by May 15, 2020. If there are no other nominations received, the election will be by a vote at the annual meeting to be held virtually on Wednesday, May 27, 2020. Details on how to participate will be posted on the website at: www.roceng.org.

Respectfully submitted,

Lynne Irwin
Administrative Director
Save the Date!

RES Annual Meeting

Wednesday, May 27, 2020

Virtual Meeting
Details will be posted on the website at www.roceng.org

Time: 5:30 to ~7:00 pm (will open at 5:15 pm)

A Thank You to Our Gala Sponsors who supported us after the cancellation of the Gala in April!

Announcement of the 2019 Award Recipients - Engineer of the Year, Young Engineer of the Year, Finalists for Young Engineer of the Year, Engineers of Distinction (see page 6 of this issue and cover of the March issue) and scholarship recipients.

Learn About RES Activities; RES Update Briefing

Board and Officer Elections: Meet new and continuing officers and directors for the fiscal year 2020-2021. You will hear a few words from outgoing President Joseph Dombrowski, PE and incoming Greg Gdowski, PhD, 1st Vice President

To join us virtually (starting at 5:15 pm) go to the RES Website for the link and details (this will be available ~middle of May)

www.roceng.org.
The 2019 Award Recipients are:

Susan Houde-Walter, PhD
2019 Engineer of the Year

Nick Vamivakas, PhD
2019 Young Engineer of the Year

We continue thank you to those who had committed in sponsoring the 118th RES Annual Gala!

Susan Houde-Walter, PhD
2019 Engineer of the Year

Nick Vamivakas, PhD
2019 Young Engineer of the Year

Brian C. Boorman
2019 Engineer of Distinction

Richard Booton
2019 Engineer of Distinction

Richard J. Buckley
2019 Engineer of Distinction

William N. Furman
2019 Engineer of Distinction

Janet C. Ibarluzea
2019 Engineer of Distinction

Susan Houde-Walter, PhD
2019 Engineer of the Year

Nick Vamivakas, PhD
2019 Young Engineer of the Year

Daniel J. Runseck, PE
2019 Young Engineer of the Year - Finalist

Leonard Zheleznyak, PhD
2019 Young Engineer of the Year - Finalist

Jon M. Kriegel
2019 Engineer of Distinction

Christopher D. Mackey
2019 Engineer of Distinction

Jannick P. Rolland, PhD
2019 Engineer of Distinction

The 2019 Award Recipients are:
This month we will go over the changes in NEC 555.3 which lists the requirements for Ground Fault Protection for marinas, boatyards, commercial and non-commercial docking facilities.

We will be comparing the NEC 2014 requirements to the NEC 2017 requirements.

There are 2 main points I’d like to write about.

The first point being the decreased threshold of ground fault protection from 100mA to 30mA in the latest code. A 30mA threshold certainly is an acceptable level to prevent a majority of electrical shock drowning incidents while remaining practical enough to minimize unnecessary tripping. Unnecessary tripping may not be a major concern for private docks and very small commercial or recreational facilities, but it could add insurmountable challenges for medium and large commercial marinas where false tripping of circuit breakers would become a massive and unmanageable nuisance.

The second point is related to how the code section 555.3 actually reads and related to the above. The 2014 code allows you to put ground fault protection at the branch breakers ONLY as an alternative which would likely limit a false trip of the main circuit breaker. The 2017 code requires that ALL breakers should have ground fault protection feeding any docking facilities which includes the main breaker.

Also did you know that all electrical equipment and wiring produce small amounts of leakage current. There is a maximum allowable leakage current for hand-held, movable and stationary electrical appliances at about 3.5mA. This is interesting and makes sense as this falls just below the 6mA “people protection” rating for devices. With boating, leakage current studies were conducted and concluded at an average of 3.9mA of leakage current was present on each vessel. (Even if everything was wired correctly!!)

So, picture this: you have a dock with 5 boats plugged into the pedestals along the dock each with 3.9mA which totals to 19.5mA. This is less than the 30mA threshold and nothing should happen. However, a problem for the main breaker is introduced if there is say 2 docks on separate branch circuits. Keeping the quantity of boats the same…you could potentially have 39mA of leakage current seen by the main breaker which causes the nuisance trip.

So, it seems like we are getting better with ground fault trip thresholds however this is likely increasing the amount of possible nuisance trips that could occur.

Some experts believe this section of the code will be re-written for the 2020 code cycle to perhaps add a time delay threshold on the main breaker or possibly change it back to the 2014 code cycle which actually doesn’t require ground fault protection on the main. Or quite possibly allow the main breaker to have a 100mA threshold with the branch circuits at 30mA.

Hopefully this article finds you well and can be used as a reference for your project needs. If anyone would like to contribute to the Rochester Engineer magazine and add an article or would like to request information on a specific topic (not limited to Electrical) just email me at beliasz@bergmannpc.com. As always, any comments are appreciated…! Thank you for reading.

Brett Eliasz, P.E., LEED AP BD+C, RES Director
January 5, 1972 (Board Meeting, Bausch & Lomb)
The Board approved the applications of eight new Regular Members. Continued concern for the financial well-being of the Society, and the treasurer’s announcement that additional financing would be required, not-longer-than the middle of the month, resulted in the approval of a motion authorizing the officers to sell any of the Society’s financial assets, toward reducing/removing current outstanding debt. The Board then approved a motion to consider reinvesting some/all of the Kate Gleason Fund, currently all held exclusively in Eastman Kodak common stock, toward increasing its yield. Chair of the Employment Committee Graham Chamberlain, and RES Executive Secretary Norm Howden presented plans to establish a unit of V.E.S.T. (Volunteer Engineers, Scientists and Technicians) to support re-employment of recently-discharged employees of the US Aerospace Program. (Editor’s note: At its peak in 1968, aerospace employment was 1.5 Million (including 255,000 engineers & scientists). By 1972 total employment in this industry had dropped to 917,000 (including 157,000 engineers & scientists).)

By Don Martin, Monroe County Department of Planning, “Balanced Transportation – Needs and Effects” by Bernard F. Perry, PE, NYSLOT, “Artificial Blood Vessels” by Dr. Charles G. Rob, U of R School of Medicine, “Master Plan – Concepts and Constraints” by Don Martin, Monroe County Department of Planning, “Automobile Air Bag Restraint Systems” by Dr. John H. States, U of R School of Medicine.

February 2, 1972 (Board Meeting, Bausch & Lomb)
The RES Finance Committee reported that, upon recommendation of the Executive Committee, 900 shares of Eastman Kodak had been sold, realizing $86,799.70, which was used to pay all debts of the Society, and the balance deposited into an interest-bearing account at Lincoln Rochester Trust Company. It was also reported that approximately one-third of this amount had been invested in convertible debentures of National Cash Register and Reynolds Metals Company, in anticipation of an approximate 6.2% annual yield.

Subsequent articles in this series will describe the RES’ continuing outreach to other technical societies as it considered its role in this and the larger community, along with more of the activities of the RES as it moved to be of greater service to its membership, especially those suffering from current economic crises, and adopted a greater role in shaping the future of the City and its environs. Noted also, will be the contributions made by RES members in the struggle to meet the challenges coming out of World War II and the Korean Conflict, as well as a hoped-for period of post-war growth and prosperity. These articles will also feature an impressive array of RES activities in support of post-war re-emergence of Rochester area industry, and the ensuing prosperity of the second-half of the 20th Century.

We welcome your questions and comments on this series.
How do you arm a STEM Teacher with real-world application examples?

Put an Engineer in the classroom!

In the 1990’s, Eastman Kodak Company jumped the gun, starting a family of STEM initiatives, years before the Government coined the STEM acronym. The name of these programs was the 21st Century Learning Challenge (TCLC), and at our peak, we were 1500 engineers and technicians, visiting Rochester City School Classrooms, twice a week for two-hour visits, during the entire School Year. This effort continued for nearly ten years, and not only pre-dates our recent STEM excitement level, but delivered support on a scale we have yet to match.

Many of the volunteers in these programs were, and still are, members of the Rochester Engineering Society (RES). In the intervening twenty-five years, many have retired, or are about to retire. That makes them even more available as STEM Coaches, than they were as Kodak employees.

The RES is working to put technical people in K-12 Classrooms, throughout the Greater Rochester area, as STEM Coaches. Their presence will:

- Help the Teacher stay current with our ever-changing technology.
- Provide real-World Application Examples, making whatever is being taught, real enough to be worth remembering.
- Support the teachers with not only the delivery of STEM concepts, but perhaps more importantly, the design and delivery of STEM related hardware.

Last year we had six STEM Coach, doing Classroom Visitation at School #3. That was so successful that RCSD is interested in expanding this program to involve nine STEM Coaches this year.

The RES is specifically seeking Retired, Technical people, (Engineers, Technicians, Machinists, Entrepreneurs or anyone whose work would allow them to visit during School hours), as STEM Coaches. We currently have more than 30 Coaches, and are connecting them with 13 Rochester-area Schools.

“This is a life-changing experience!”

For more information contact: Jon Kriegel • jkriegel@rochester.rr.com • 585-281-5216
RES Volunteer Coordinator, Volunteer STEM Coach
Please visit: roceng.org/stem-bridges

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res news - stem bridges
With the layoffs and realignments, due to the mid-year RCSD budget crisis, our School has lost a significant portion of its first-semester faculty. These departing teachers were replaced by others who were similarly displaced from their own original positions, at other schools. With the resultant disruption in classroom instructional consistency, the Leadership at DWCA has decided to suspend the use of RES Tutors, for the balance of the 2019-20 school year. This has been done in the hope of allowing the “new” teachers to develop closer relationship with their students, and to intensify their focus on improving the reading, math and science scores of our Cooper Scholars.

Despite the subsequent COVID-19 crisis & shut-down, we are hopeful that the RES Tutoring Team will be allowed to resume its work, next Fall, when our School returns to its newly renovated campus, at 353 Congress Ave., in City’s Nineteenth Ward. When that happens, we will once again need the dedicated service of our current RES Tutors and, no doubt, additional tutors, working with the teachers and students, in support of the NY State Science Curriculum.

Does this sound interesting to you, or maybe to some of your friends? Could you see yourself supporting the presentation of science curriculum to students, ages five to eleven? Who was it that showed you how science could “make a difference” in your life? Could you help introduce someone to science, yourself? Do you think you can make room in your life for this important challenge?

We will continue to build our RES Tutoring Team, now for the 2020-21 school year…

Questions??? Reach out to RES Past President Lee Loomis and the RES Tutoring Team at…Rochester Engineering Society (585) 254-2350, via website: www.roceng.org, or via email: leeloomis46@gmail.com, (585) 738-3079 (mobile & text)
Dr. Walter Cooper Academy “2020 Science Fair”
Postponed due to RCSD Lay-Offs & COVID-19 Shut-Down

The recent lay-offs, by the Rochester City School District (RCSD), have resulted in the mid-year departure of as many as five elementary school teachers from our School. This, and the current COVID-19 Crisis shut-down of the RCSD, has validated our earlier decision to postpone, and “regroup” in our effort to develop and present the “2020 First Annual Dr. Walter Cooper Academy Science Fair”.

The School-Based Planning Team, and the Parent-Teacher Organization (PTO), including parents, teachers and administrators, requested the support of the RES in developing a Winter 2020 science fair at #10 School.

In response, we recruited a small team of Volunteer/ Mentors (V/M’s) to work with nine identified Cooper Scholars (Grades 4 – 6), to prepare them for a Science Fair. We were prepared to begin this effort in December 2019.

However, with these sudden mid-year staff reductions, it became necessary to give the Administration and Faculty some time to determine if, and how, we might still be able to proceed with plans for such an event, especially with the subsequent COVID-19 Crisis and RCSD shut-down.

At an early January 2020, meeting with the School Leadership, we began discussing options for moving forward in this effort. We are still hoping, this Summer, to begin planning for a Fall 2020, science fair.

Please bear with us (Grrrr…), as we continue to seek ways to expose our Cooper Scholars to the many fascinating aspects of Science, Technology, Engineering & Math (STEM) in their futures.

If you think you might be able to make room in your schedule to help with this effort, please reach out to RES Directors, Lee Loomis (leeloomis46@gmail.com) or (585) 738-3079 (mobile & text) or Jon Kriegel (jkriegel@rochester.rr.com) or (585) 281-5216, for more information, and to volunteer for this important, potentially life-changing opportunity.
EVERYONE INTERESTED IS INVITED: A Short History of TRB

SARAH JO PETERSON

The author is Principal, 23 Urban Strategies, Washington, D.C. This article is adapted from The Transportation Research Board, 1920-2020: Everyone Interested Is Invited, to be published by the National Academies Press in January 2020.

When setting out to write a history of TRB in honor of its centennial, I quickly learned that TRB is many things to many people. More than once, I heard people refer to the parable of the blindfolded men and the elephant: gleaning only what they can detect through briefly touching the animal, each person describes something completely different. TRB, of course, is the elephant.

For some, TRB is an annual professional conference: a great event for networking and keeping up-to-date in their fields and a healthy environment to invite others to engage with their research. For others, TRB is their standing technical committee: a community for support and contribution to the advancement of the field through research needs statements, calls for papers, or specialty conferences.

For practitioners, TRB is the unseen force behind reports and webinars that seem to just appear, ready to assist with a new task or a problem to solve. For those in search of policy-related advice, TRB is

Above: TRB’s Annual Meeting draws transportation researchers, practitioners, policy-makers, and others from around the world.

TRB’s committees and panels convene transportation experts from a range of backgrounds and professions.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>1963</td>
<td>Congress charters the National Academy of Sciences (NAS)</td>
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<tr>
<td>1916</td>
<td>NAS organizes the National Research Council (NRC) to serve the federal government during World War I</td>
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<tr>
<td>1920</td>
<td>Nov. 11: NRC’s Division of Engineering and the federal Bureau of Public Roads (BPR) convene the organizing meeting for the Advisory Board on Highway Research</td>
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<td>1921</td>
<td>William K. Hatt becomes the Board's first director</td>
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<td>1922</td>
<td>First Annual Meeting of the Board is held in January</td>
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<tr>
<td>1924</td>
<td>Charles M. Upham becomes the Board's second director</td>
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<tr>
<td>1925</td>
<td>Jan. 1: Board changes its name to the Highway Research Board (HRB)</td>
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<tr>
<td>1926</td>
<td>Roy W. Crum becomes HRB's third director</td>
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<tr>
<td>1935</td>
<td>HRB organizes its technical committees into departments</td>
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<td>1936</td>
<td>Congress funds studies of highway safety, co-managed by HRB and BPR</td>
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<tr>
<td>1944</td>
<td>Federal-Aid Highway Act authorizes a National System of Interstate Highways and authorizes states to spend federal aid on research</td>
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<td>1945</td>
<td>HRB launches the Research Correlation Service, funded by the states</td>
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<td>1948</td>
<td>American Association of State Highway Officials (AASHO) adopts procedures for states to pool funds for research projects to be administered by HRB</td>
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<tr>
<td>1951</td>
<td>Fred Burggraf becomes HRB's fourth director</td>
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<tr>
<td>1955</td>
<td>AASHO requests that HRB administer the AASHO Road Test</td>
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<tr>
<td>1956</td>
<td>Federal-Aid Highway Act accelerates funding for the National System of Interstate and Defense Highways and expands the AASHO Road Test</td>
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<tr>
<td>1956</td>
<td>HRB launches the Highway Laws Project, with funding from the Automotive Safety Foundation and AASHO</td>
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<tr>
<td>1962</td>
<td>National Cooperative Highway Research Program is established by agreement with AASHO, BPR, and NAS</td>
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<tr>
<td>1964</td>
<td>National Academy of Engineering is organized</td>
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<tr>
<td>1964</td>
<td>D. Grant Mickle becomes HRB's fifth executive director</td>
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<tr>
<td>1966</td>
<td>William N. Carey becomes HRB's sixth executive director</td>
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<td>1967</td>
<td>HRB rebrands the Research Correlation Service as the Technical Activities Division</td>
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<td>1969</td>
<td>NRC approves a new purpose and scope for HRB that officially includes urban transportation</td>
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<td>1970</td>
<td>HRB reorganizes its technical committees into groups defined by transportation system phases</td>
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<td>1971</td>
<td>Urban Mass Transportation Administration becomes an HRB sponsor</td>
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<tr>
<td>1974</td>
<td>March 9: Highway Research Board dissolves and the Transportation Research Board (TRB) is born</td>
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<tr>
<td>1977</td>
<td>New TRB sponsors include the Maritime Administration, the Association of American Railroads, and the U.S. DOT's Office of the Secretary, Federal Railroad Administration, Federal Aviation Administration (FAA), and National Highway Traffic Safety Administration</td>
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<td>1980</td>
<td>Thomas B. Deen becomes TRB’s seventh executive director</td>
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<td>1982</td>
<td>TRB takes on the responsibility for policy (consensus) studies</td>
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<tr>
<td>1987</td>
<td>Congress authorizes the Strategic Highway Research Program</td>
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<td>1991</td>
<td>Congress authorizes the Transit Cooperative Research Program, to be sponsored by the Federal Transit Administration</td>
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<tr>
<td>1994</td>
<td>Robert E. Skinner, Jr., becomes TRB’s eighth executive director</td>
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<tr>
<td>1999</td>
<td>Marine Board joins TRB</td>
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<tr>
<td>2003</td>
<td>Congress authorizes the Airport Cooperative Research Program, to be sponsored by FAA</td>
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<tr>
<td>2003</td>
<td>TRB’s standing technical committees reorganize into 11 groups representing modes and system functions</td>
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<tr>
<td>2005</td>
<td>Congress authorizes the second Strategic Highway Research Program</td>
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<tr>
<td>2015</td>
<td>Neil J. Pedersen becomes TRB’s ninth executive director</td>
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<tr>
<td>2021</td>
<td>Jan. 24–28: TRB celebrates its 100th Annual Meeting</td>
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one of many areas of expertise within the National Academies of Sciences, Engineering, and Medicine that can provide service via consensus study.

For governments, TRB is a trusted institution through which to fund large-scale and continuing research programs. For researchers, TRB is the manager of contracts for compelling work. For officials and administrators, TRB is a community that supports conferring with the best minds before making decisions affecting the travel of millions.

After examining how people and institutions created today's TRB, I concluded that TRB can be best understood as an infrastructure—one that people purposely designed, carefully constructed, and devotedly maintained to share and strengthen knowledge about transportation.

**Deep Foundations**

The core missions and structures that underpin today's TRB predate its birth. In 1863, Congress chartered the independent National Academy of Sciences (NAS) to advise government upon request. NAS's founders responded to their first federal requests by forming committees, setting the precedent that the expertise required to advise government is found not in the individual but in a group acting collectively. According to the original charter, appointees to the National Academies' committees serve without payment.

In 1879, following the recommendation of an NAS committee, Congress established the U.S. Geological Survey in the Department of the Interior. After this notable success, advising government on its research programs became a continuing activity, including through longstanding committees administered by TRB.

In the 1880s, NAS members conducted a wrenching internal debate over the centralization of science. In the end, the proponents of decentralization won: the National Academies encourages research in the federal government but also in universities, industry, and state and local governments.

NAS leaders founded the National Research Council (NRC) to support the federal government during World War I, and on May 11, 1918, President Woodrow Wilson issued an executive order establishing a continuing, peacetime mission for the council. NRC's first duty was "to stimulate research" in the sciences and "in the application of these sciences . . . with the object of increasing knowledge, of strengthening the national defense, and of contributing in other ways to the public welfare." By the end of 1919, NRC had launched approximately 80 committees, with more than 1,000 participants, and had approved a proposal for six committees grouped under an Advisory Board for Highway Research.

**The Problem of Highways**

When the organizing conference for NRC's new board on highways convened on November 11, 1920, attendees saw an immense set of problems. The country had agreed that good roads were important in ameliorating rural isolation, and Congress had funneled $75 million to state highway agencies in the Federal Aid Road Act of 1916. In 1919, Congress added another $200 million. Nearly 10 million motor vehicles plied America's roads in 1920, a number that would more than double by 1925.

In addition, World War I had proved that it was feasible to move freight long distances by truck—but to highway builders' dismay, new roads crumbled from the use of heavy vehicles. How were road builders to make decisions about planning, financing, and constructing highways that could withstand the punishing forces of trucks? Should they also ensure that narrow lanes, tight curves, and steep climbs did not inhibit the speed of freight movement? At what cost? The economics of highway building and trucking would be a significant area of concern for decades to come.
TRB’s founders understood that highways epitomized a central conundrum that affects all types of transportation to some degree. Strictly speaking, highways are not a mode of transport—they are a type of infrastructure. Moreover, highways, motor vehicles, and freight movement—although deeply interdependent—also are three separate industries. Even more decentralized is the use of roads and vehicles for personal travel.

TRB’s founders purposely created an organization that brought experts from academia together with the different industries, organizations, and government agencies connected to roads and highways (see box below). The founders believed that a cooperative approach to stimulating research would help them achieve some degree of voluntary coordination. In addition, sharing research gave the interdependent industries a way to see into each other’s future.

After embarking on its first research contract—a study of reinforced concrete funded by private industry—the board rechristened itself the Highway Research Board (HRB) in 1925.

Reflecting its cross-industry cooperative approach to research, HRB was originally organized as a federation of member organizations under the NRC umbrella. Although it became a unit formally appointed by NRC in 1962,

Because of the interdependent nature of such industries as highways, motor vehicles, and freight, TRB’s founders wanted to create an organization with a cooperative research approach.

Open Invitation
In 1928, HRB’s leaders broke with the National Academy’s usual procedure of inviting top experts and leaders to attend the annual meeting of the Board and its technical committees and instead invited “everyone interested.” Moreover, HRB leaders wrote to state governments and

Ridge Route Highway cuts through the Tehachapi Mountains, 1920. As trucks began moving freight, road builders had to consider if narrow lanes, steep climbs, and tight curves inhibited freight movement.

MEMBER ORGANIZATIONS

ADVISORY BOARD ON HIGHWAY RESEARCH
Division of Engineering, National Research Council
First Annual Meeting, January 16, 1922

American Association of State Highway Officials
American Concrete Institute
American Institute of Consulting Engineers
American Society of Civil Engineers
American Society of Mechanical Engineers
American Society for Municipal Improvements
American Society for Testing Materials
Association of American State Geologists
Bureau of Public Roads (U.S. Dept. of Agriculture)
Engineering Foundation
National Automobile Chamber of Commerce
National Highway Traffic Association
Society of Automotive Engineers
U.S. Army Corps of Engineers
Western Society of Engineers

SOURCE: Minutes, January 16, 1922. TRB Executive Committee Meeting Minutes Record Group, NAS-NRC Archives.
universities asking them to send anyone involved in highway research to the next meeting in Washington, D.C. This invitation built on a culture that already valued a broad definition of expertise and the ability to contribute to research. From the beginning, the Board’s technical committees included researchers, practitioners, and administrators from all over the United States.

Today, the meetings of TRB’s roughly 200 standing technical committees are open to everyone who is interested. Although the number of appointed members of standing technical committees are limited to a few dozen, friends of a standing technical committee may range in number from tens to hundreds. Friends—an organic innovation prominent enough to have reached TRB’s Annual Report by 1997—may participate in most of a standing technical committee’s activities.

“Everyone” also included students and young researchers. For decades, HRB excitedly tracked how many Annual Meeting attendees were first-time presenters. The number was typically around half of all presenters. By midcentury, the January road trip to Washington—by car, recreation vehicle, or chartered bus—was a well-established rite of passage for young researchers. The Annual Meeting has also become a major gathering for awardees of the Dwight David Eisenhower Transportation Fellowship Program, administered by the Federal Highway Administration (FHWA). In addition, the TRB Minority Student Fellows Program, launched in 2009, encourages students, under the guidance of a faculty mentor, to present their research at the Annual Meeting.

The open invitation in 1928 also set the stage for the modern conference and convention functions at the TRB Annual Meeting—the lectern sessions, poster sessions, receptions, and exhibit halls. The January meeting now regularly tops 13,000 attendees from all over the world.

**Partnerships with States**

During the 1930s, HRB added the identification of research needs to the responsibilities of its technical committees. This established that the selection and promotion of research priorities should also be a collective, cooperative task.

Although the federal Bureau of Public Roads (BPR) was HRB’s largest single financial sponsor during its first two decades, the states stepped up in a big way starting in the 1940s. Frustrated with the limits of an organization essentially run by volunteers, in 1944 the state highway departments, working through the American Association of State Highway Officials (AASHTO), arranged for legislation allowing federal-aid dollars to be spent on research. State officials then worked with HRB to develop a sponsorship arrangement for the Research Correlation Service, which funded professional staff for HRB’s technical committees and for research communications. The sponsorship model that the states pioneered for highways proved foundational for TRB’s modal expansion in the 1970s and 1980s and continues to support sponsor relationships with many
federal agencies and industry organizations. TRB’s Technical Activities Division is a direct descendant of the Research Correlation Service.

In 1948, AASHO and HRB negotiated a cooperative research arrangement that was deployed during the 1950s for a series of road tests, culminating in the $27 million AASHO Road Test that ran from 1956 to 1962. Although the road tests aimed at optimizing highways for freight movement and tax revenue from trucking, they produced their biggest impacts in pioneering modern statistical methods for researching pavement design.

Broadening the Scope
AASHO and the Automotive Safety Foundation began supporting studies of highway law in the 1950s, bringing legal research under the HRB’s purview. The Automotive Safety Foundation also funded early efforts tackling urban transportation. The Board experimented with different models for conducting these studies. For the laws project, HRB hired additional staff but contracted with experts at universities for the research.

Innovations from the 1930s to the 1950s prepared the way for the three-party agreement signed by NAS, AASHO, and NCHRP in 1962 that founded the National Cooperative Highway Research Program (NCHRP).

Congress had provided the urgency for NCHRP in the massive construction boost it gave to the Interstate Highway System in 1956. In response, HRB staff, technical committees, and state highway officials worked together to produce HRB Special Report 55: Highway Research in the United States: Needs, Expenditures and Applications in 1960, which outlined a research program that they then transformed into NCHRP. AASHO selected NCHRP’s annual slate of projects, as it had done for the highway laws project; HRB managed research conducted by outside contractors, similarly to its urban research; and states collectively funded the research, as they had done for the AASHO Road Test. In addition to the traditional highway design, materials, construction, finance, management, and maintenance topics, highway law and urban transportation were also part of the new research program.

In 1969, HRB formally expanded its scope to include urban transportation, and the federal Urban Mass Transportation Administration (UMTA) became a sponsor in 1971. It was a time of renewed emphasis on engineering and significant activism related to transportation—including many freeway revolts in urban areas. The National Academy of Engineering had formed within NAS in 1964, and Congress had created the U.S. Department of Transportation (DOT) in 1967. Whether the National Academies should also have a unit with the comprehensive perspective of “total transportation” led to considerable—sometimes heated—debate within the National Academies, federal agencies, and state governments.

In the end, the Board followed its state partners. AASHO became the American Association of State Highway and Transportation Officials (AASHTO) in November 1973; subsequently, the National Academies dissolved HRB and formed the Transportation Research Board on March 9, 1974.

As it had done for urban transportation, the new TRB set out to show rail and aviation interests what it had to offer, in hopes of earning their sponsorship too. The National Academies already had a Maritime Transportation Research Board (see sidebar, page 15). TRB created technical committees, recruited participants, and held conferences and workshops dedicated to specific problems or general research needs. It also arranged to include new modes and emerging topics, such as safety and environmental issues, in TRB’s transportation research information system. Developed during the 1960s, this cutting-edge computerized database is the origin of today’s TRID, an integrated database of 1.2 million records of transportation research.1

By the end of the 1970s, new sponsors included the Association of American Railroads; the Maritime Administration; and U.S. DOT’s Office of the Secretary, Federal Railroad Administration, Federal Aviation Administration (FAA), and National Highway Traffic Safety Administration (NHTSA). In addition, a 3-year grant from the U.S. Agency for International Development enabled TRB to develop its first significant international program, on low-volume roads.

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1 To access TRID, visit https://trid.trb.org
The Lost History of the Marine Board

When the Marine Board joined TRB in 1999, the National Academies introduced it to TRB audiences with a little history in that year’s Annual Report: the Marine Board dated back to 1965, to a Committee on Ocean Engineering. Among the Marine Board’s prominent studies during the 1990s was a series on ship hull design in the wake of the Exxon Valdez disaster and a major study on controlling garbage and plastic waste in the oceans.

This illustrious legacy, however, was really only part of a much longer history that had been lost during organizational shifts inside the National Academies.

In 1982, the Marine Board merged with an older board, the Maritime Transportation Research Board. This latter board, formed in 1961, was itself the culmination of a dozen studies produced during the 1950s and early 1960s under the guidance of the Maritime Cargo Transportation Conference. Under a contract with the Office of Naval Research and at the request of the U.S. Department of Defense and Commerce, the Conference was dedicated to the study of what they called the “unitization” of cargo in “transporters.” Today, we call this containerization.

The Conference formed in 1953, 3 years before the first commercial application of containerization, and focused on economic studies of shipping, including reducing ship turnaround times at ports and safety in the stowage industry. (At the time, the word “conference” meant a group that meets and coordinates efforts around a problem or issue.)

One could even argue that the ancestors of today’s Marine Board and the Marine Group in TRB’s Technical Activities Division date to the founding of the National Academy of Sciences in 1863. Two studies requested by the U.S. Navy that year examined ironclad ships, and a third study set standards for publishing technical information related to nautical charts.

Transportation, it turns out, has always been part of the National Academies.

Consensus Studies

In 1982, TRB formally expanded its capacity to manage the process that the National Academies uses to advise the federal government and others. HRB had produced studies for Congress in earlier decades. In the 1930s, HRB and BPR had co-managed a series of congressionally funded studies on traffic safety. HRB also had integrated directions from Congress into the AASHO Road Test.

During the 1970s, however, the National Academies reformed the process for producing policy advice. They incorporated peer review and adopted rules designed to avoid conflicts of interest and balance biases among committee appointees as well as to ensure appropriate representation of a variety of disciplinary and professional perspectives. Today, these studies are aptly called consensus studies.

Since 1982, TRB has produced more than 100 consensus studies on all modes and on a broad range of topics, with final reports ranging in length from a short letter to multiple volumes. Major pieces of federal transportation legislation typically contain congressional requests for studies. Federal agencies also have come to TRB for everything from highly technical analyses to broad policy assessments.

TRB also has pursued self-initiated consensus studies. For these, TRB can follow one of three funding paths: external sponsorship alone, pooled sponsorship with TRB funding, or solely TRB-funded. Most self-initiated studies have required at least some TRB funding, and TRB discovered that pooled sponsorship, if possible, was usually the most desirable route for a self-initiated study. Broader sponsorship, especially from those with authority to advance a study’s recommendations, maximizes the potential for impact.
Superpave® asphalt design was one of the important accomplishments of the Strategic Highway Research Program.

Strategic Approach to Research

TRB's first policy study was self-initiated in partnership with AASHTO and funded by FHWA. Published in 1984, Special Report 202: America's Highways—Accelerating the Search for Innovation not only led to the first Strategic Highway Research Program (SHRP) but also created a model that has since been used to outline and develop support for additional major research programs.

America’s Highways made the case for a large, highly targeted program of research to improve highways. It also presented different institutional approaches to managing the research. Congress funded the $150 million, 5-year program in 1987, and the National Academies created a separate unit to manage the program. The Superpave® asphalt pavement design system was only one of SHRP’s many accomplishments.

Even before SHRP got under way, TRB was leading another consensus study for strategic transportation research. UMTA sponsored the yearlong study that produced Special Report 213: Research for Public Transit—New Directions in 1987. Instead of a big, short-term research program, the report recommended a Transit Cooperative Research Program (TCRP) modeled after NCHRP. Congress authorized TCRP in 1991, and the American Public Transportation Association (APTA) became its TRB sponsor. TRB manages TCRP for the Federal Transit Administration and APTA; annual program budgets have fluctuated between $5 and $10 million.

After decades of interest within the aviation industry, Congress requested a consensus study outlining an airport research program in 2000. The legislation specifi-
cally directed the study to evaluate the applicability of NCHRP and TCRP, and the 2003 Special Report 272: Airport Research Needs—Cooperative Solutions emphasized that airport operators should be directly involved in every phase of such a research program. Congress authorized the Airport Cooperative Research Program (ACRP) in 2003. Sponsored by FAA and funded today at $15 million annually, ACRP follows the NCHRP and TCRP model and produces solutions to practical problems.

The cooperative research program model, in which industry members select annual research programs and guide the research process, also has been deployed for shorter-term programs producing practical solutions for freight and hazardous materials transportation and commercial truck and bus safety. A new cooperative research program on behavioral traffic safety launched in 2017.

NCHRP continues too. Celebrating its 50th anniversary in 2012 and currently funded at nearly $42 million annually, the program remains true to its founders’ vision. One of its unanticipated uses, however, has been helping plan and implement the first and second Strategic Highway Research Programs.

In 1998, Congress requested a consensus study for a future strategic highway research program. This resulted in the 2001 publication Special Report 260: Strategic Highway Research—Saving Lives, Reducing Congestion, Improving Quality of Life. The report outlined a research program built around four goals: accelerating the renewal of America’s highways; making a significant improvement in highway safety; providing a highway system with reliable travel times; and providing highway capacity in support of the nation’s economic, environmental, and social goals. Congress authorized SHRP 2 in 2003; the legislation referenced the consensus study by name and summarized the four goals. In operation from 2006 to 2015, SHRP 2 received $217 million in funding and produced 130 promising products.

Leaders, Volunteers, and Staff
I’ve written this entire brief history of TRB without referring to a single person by name. This is intentionally ironic because, if anything, the history of TRB reinforces how much individuals matter—people of strong character, commitment, and curiosity, with a willingness to work together.

TRB has always operated with a committed and passionate staff that is small relative to its corps of volunteers. Today, thousands of volunteers populate TRB’s standing technical committees, research program panels, and consensus study committees. Over the decades, these volunteers have become more diverse in expertise, backgrounds, and perspectives. At its most successful, TRB has taken the initiative to reach out to new communities of experts and practitioners as demanded by its mission to stimulate research that contributes to the public welfare. The select appointment to its committees is in nearly perfect balance with the open invitation to everyone interested.

2 The book, however, names names.
Get to the Point!

Presentation Phobia (3): From Power Point Poison to Standing Ovation

In a previous article I presented the concept of the Three Ps of Presentations: Plan, Prepare, and Practice. In the planning stage, you must establish the circumstances around your presentation, determine your audience’s needs and interest, and organize your information. When you prepare, you need to organize your information into an order which is logical and meaningful to your audience.

In this article, I continue with the Prepare stage because establishing structure to your content is only part of preparation.

Make Speaking Notes

Don’t rely on just your Power Point slides. Often speakers fear that if they have note cards, the audience will think they are unprepared. In fact, it sends the opposite message. It shows the audience that you DID prepare and that you wanted to make sure you didn’t miss a point.

Prepare your speaking notes on cards no smaller than 3 in. X 5 in. Write in large, bold letters that you can see at a glance and, and use brief headings to develop the information in sufficient detail. Avoid using a full sheet of paper for your notes. If you are nervous, your hand may quiver and the paper will shake. You also may be tempted to include far too much information on it and end up reading from the paper.

The amount of information you include will depend on the subject, your familiarity with it, and your previous speaking experience. Your notes should not be so detailed that you cannot quickly pick out points, nor so skimpy that you have to rely too much on your memory.

Prepare Visual Aids

Visual aids help clarify and explain your concepts. They are especially important when discussing complex, technical information. Some people are visual learners and need to see the information as well as hear it. Examples of visual aids are PowerPoint slides, poster boards, physical props, equipment, and hand-drawn diagrams.

Here are some tips for creating effective visuals:

- Use color to highlight key words or parts, but in moderation. Some colors, such as green and blue or red and orange are hard to tell apart from a distance.
- Place a short title above or below each slide.
- Give credit to the original source for diagrams, graphs, and images, just as in a written document.
- Select an appealing design that provides contrast between the background and text.
- Avoid dazzling transitions. They take the attention away from you and your content.
- Print copies of your slides to use as a prompt or to offer as a handout, but it shouldn’t be your only handout.

Practice working with your visuals and make sure you know exactly which slide comes next. This also helps you ensure that your speaking notes match up to your slides.

Prepare Handout Notes

During the preparation stage you need to decide whether to provide printed material for your audience. If so, you also have to decide whether to make it copies of your Power Point slides or a summary report of the main topics. There is a trend today to only provide copies of slides. This is easy, but may not be effective. Although it may take longer, I encourage you to write a short document to distribute to your audience. This is a useful resource to remind them, in your words, of what your key points were. A bulleted list doesn’t suffice.

When is the best time to distribute your handouts? There are three approaches:

1. If you are providing copies of the slides, hand them out at the start.
2. If you have charts or diagrams to refer to, hand them out at the moment in the presentation when they are needed.
3. If you have a detailed summary of your points, hand it out at the end.

In my next article, I’ll discuss the third P, Practice.
Save the **NEW Date for the:**

2020 Engineering Symposium in Rochester

www.engineeringsymposiumrochester.com

Earn up to 7 PDHs

*Sponsored by*

*Rochester’s Technical and Engineering Societies and RIT*

**Tuesday, September 22, 2020**

*Courses available in: Civil, Electrical, Lighting, Mechanical, HVAC, and Plumbing.*

**SAME LOCATION AS LAST YEAR:**

*Joseph A. Floreano* Rochester Riverside Convention Center

123 East Main Street, Rochester, NY

Time: 7:30 am to 6:30 pm

$140 Advance Registration (Plan to go back online ~August 1st)

$20 Student Registration

$170 AFTER September 1, 2020 and at the Door

Registration will re-open online at www.roceng.org about ~August 1st

The Monroe Chapter of NYSSPE, in accordance with ADA compliance, will make every attempt to provide reasonable accommodations for those requiring additional services to participate in our educational programs. If you should require such services, please contact Lynne Irwin at the Rochester Engineering Society (res@frontiernet.net or 585-254-2350) to request support by August 31, 2020.
SWBR announced finance specialist Jasmine Calhoun and project designer Katheryn Palmer have joined the firm.

Calhoun is responsible for billing, contract management, project resource plans, and assisting with financial reports for the firm’s housing studio. She graduated from the University at Albany with a bachelor’s in actuarial science and a minor in business and economics.

As part of the firm’s education studio, Palmer assists project architects with design and construction documentation on K12 projects. She graduated from Alfred State College with a bachelor’s in architecture.

Save the Date

Annual Engineering Symposium in Rochester

Re-scheduled to
Tuesday, September 22, 2020
Rochester Riverside Convention Center

Additional details will be posted on the RES website: www.roceng.org

Registration will re-open around August 1st.
The New York State Department of Transportation is continuously recruiting engineering candidates at all levels, entry level through Team Leader. To apply, visit the New York State Department of Civil Service website at https://www.cs.ny.gov/jobseeker/public/licensing.cfm, select Engineering Positions, specifically Civil/Transportation Exam Series, which includes Engineer Trainee, Assistant Engineer, and Professional Engineer 1. For general inquiries, please email R04-Design@dot.ny.gov.

Save the Dates

Annual Engineering Symposium in Rochester

Re-scheduled to
Tuesday, September 22, 2020
Rochester Riverside Convention Center

Additional details will be posted on the RES website: www.roceng.org

Registration will re-open around August 1st.

JOIN OUR TEAM!

MRB Group Engineering, Architecture & Surveying, D.P.C. is currently recruiting for several positions to join our growing firm in Rochester and Syracuse New York including:

Civil Engineers: to plan, design, direct, oversee and execute civil engineering projects in our water/wastewater group.

Planner/Civil Engineer: to provide support on subdivision and site plan reviews, planning board activities, general planning services, and SWPPP/Site Inspections.

Construction Observers: to oversee construction of various projects in Western and Central New York.

Visit our website (www.mrbgroup.com) for additional information. Resumes can be sent directly to: resume@mrbgroup.com or mailed to: MRB Group, The Culver Road Armory, 145 Culver Road, Suite 160, Rochester, NY 14620.
Continuing Education Opportunities

**Wednesday, May 20**
American Society of Plumbing Engineers (ASPE)  
*Domestic Hot Water Recirculation Options*  
*1 PDH Credit pending approval*

*Speaker: Bob Oursler, Urell*

*Place: Valicia’s Ristorante, 2155 Long Pond Road, Rochester, NY 14606 (just north of Route 31, Gates)*

*Time: 12:00 noon to 1:30 pm (please arrive by 11:50 am).*

*Cost: $20 (member or guest), check or cash at door.*

*Reservations: Reservations by May 15th to Dave Jereckos (585-341-3168), or djereckos@ibceng.com*

**Tuesday, September 22 (Re-scheduled)**
2020 Engineering Symposium in Rochester  
*Earn up to 7 PDHs*

*Place: Rochester Riverside Convention Center, 123 East Main Street, Rochester*

*Time: 7:30 am to 6:30 pm*

*Cost: $140 Advance registration; $20 Student registration; $170 AFTER September 1, 2020 and at the door.*

*Registration: Registration is now open at www.roceng.org.*

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**To post continuing education opportunities on this page please contact the Rochester Engineering Society, 585-254-2350, or email: admin@roceng.org**

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**Engineers’ Calendar**

The engineering societies are encouraged to submit their meeting notices for publication in this section. The deadline for submitting copy is the 10th of the month prior to the month of publication. Please email to: admin@roceng.org. The meetings offering PDHs are highlighted in blue. Details about the meeting and affiliate (if in this issue) are on the corresponding page listed next to the affiliate name.

**Wednesday, May 5**
Institute of Electrical and Electronic Engineers (IEEE)  
*EXCOM Meeting*

*Place: On-line: via webex conferencing.*

*Time: 11:50 am to 1:00 pm*

*Registration links for our events are at: http://sites.ieee.org/rochester/.*

**Vtools 228620**

**Thursday, May 14**
Genesee Valley Land Surveyors Association (GVLSA)  
*Finger Lakes Dinner*

*Place: TBD*

*Time: 6:00 pm*

*Website: www.gvlsa.com*

**Wednesday, May 13**
Association for Bridge Construction and Design (ABCD)  
*Annual Dinner Meeting & Bridge Awards*

*Place: Terry Hills, 5122 Clinton Street Road (Rte. 33), Batavia, NY 14020*

*Time: Open bar and hors d’oeuvres at 5:30 pm; Buffet Dinner at 6:30 pm; program to follow.*

*Cost: Members - $40; Non-members - $55; Full Time Students - $25.*

*You may pay at the door.*

*Registration: Register by May 4th with Mike Davidson, 716-289-5976, mdavidson@jmdavidsoneng.com.*

**Wednesday, May 20**
American Society of Plumbing Engineers (ASPE)  
*Domestic Hot Water Recirculation Options*  
*1 PDH Credit pending approval*

*Speaker: Bob Oursler, Urell*

*Place: Valicia’s Ristorante, 2155 Long Pond Road, Rochester, NY 14606 (just north of Route 31, Gates)*

*Time: 12:00 noon to 1:30 pm (please arrive by 11:50 am).*

*Cost: $20 (member or guest), check or cash at door.*

*Reservations: Reservations by May 15th to Dave Jereckos (585-341-3168), or djereckos@ibceng.com*
**Friday, May 29**
American Society of Civil Engineers (ASCE)  p 32
*Annual 18-Hole Scholarship Golf Tournament*
Place: Webster Golf Course – East Course, 440 Salt Road, Webster, NY 14580
Time: Registration, lunch, and social hour from noon to 1:15 pm; Shotgun start at 1:30 pm. Dinner will be served following the tournament.
Cost: Four-person Scramble Format. $95/person includes lunch, driving range, 18 holes, cart, dinner and drink tickets.
Registration: To register or sponsor a hole, contact Josh Rodems, 585-232-5135 or jrodems@bergmannpc.com. Reservations and payment due by May 15, 2020.
Website: https://sections.asce.org/rochester.

**Monday, July 13**
Electrical Association (EA)  p 40
*40th Annual Invitational Golf Outing*
Place: LeRoy Country Club, 7759 East Main Road, LeRoy, NY 14482
Time: Shotgun start at the Club House at 10:00 am (registration opens at 9:00 am)
Cost: Register early (choice of hotdog or hamburger, chips and beverage), one free beverage ticket (good at the beverage cart), buffet dinner and prizes. Each golfer gets one free beverage ticket than can be used at the beverage cart. Additional drinks may be purchased directly from the beverage cart driver (cash only).
Buffet dinner only - $25 per person.
Registration: Purchase tickets on-line at www.eawny.com or call 585-382-9545. Inquire about sponsorship opportunities.

**Thursday, June 11**
American Society of Plumbing Engineers (ASPE)  p 36
*Annual Golf Outing – Save the Date!*
Place: Victor Hills
Time: 10:00 am
Additional details in the June issue and on the website.

**Thursday, June 18**
Association for Bridge Construction and Design (ABCD)
*Annual Golf Tournament - Save the Date!*
Place: Terry Hills, Batavia, NY
www.abcdwny.org

**Thursday, June 18**
Genesee Valley Land Surveyors Association (GVLSA)  p 39
*Board of Directors Meeting*
Place: 40 & 8 Club, 933 University Avenue, Rochester, NY 14607
Time: 6:00 pm
Website: www.gvlsa.com

**Monday, June 22**
Illuminating Engineering Society (IES)  p 31
*Annual Buffalo and Rochester Joint IES Golf Outing*
Place: Stafford Country Club, 8873 Morganville Road, Stafford, NY 14143
Time: Shotgun start at noon; Lunch served starting at 11:00 am.
Online registration soon on the website at www.iesrochester.org.

**Tuesday, September 22 (re-scheduled)**
*2020 Engineering Symposium in Rochester*  p 22
*Earn up to 7 PDHs*
Place: Rochester Riverside Convention Center, 123 East Main Street, Rochester
Time: 7:30 am to 6:30 pm
Cost: $140 Advance registration; $20 Student registration; $170 AFTER September 1, 2020 and at the door.
Registration: Registration is now open at www.roceng.org.

**Tuesday, October 27 (re-scheduled)**
Institute of Electrical and Electronic Engineers (IEEE)  p 35
*2020 IEEE Rochester Section Joint Chapters Meeting*
Place: Louise Slaughter Hall, RIT
Time: 3:30 pm to 8:30 pm
Registration links for our events are at: http://sites.ieee.org/rochester/. Register before September 30th and save at least $20 and confirm your all-American buffet dinner reservation.

The RES website (www.roceng.org) has a calendar of events for this month’s meetings and meetings that are received or updated after print deadline. Please refer to the website for updated information. If you wish to be listed in the calendar please send details to res@frontiernet.net.
SWBR announced four key leadership promotions. Michael Brown, AIA, William Price, RLA, Kristin Purdy, AIA, and Keith Sylvester have been promoted to senior associate.

“We’re proud to announce our new leadership team members as we look forward to another successful year of positively impacting lives through meaningful design,” said President Tom Gears, AIA.

Michael Brown, AIA, CDT, LEED AP BD+C, has been with the firm for 16 years and is a project architect/manager in the Workplace Studio where he manages design and construction for municipal and commercial projects. As a certified NYS code enforcement officer, Brown also provides expert reviews and assessments on code-related issues. He earned a master of architecture, master of business administration and bachelor of architecture from the University at Buffalo.

“Mike is well known and respected throughout SWBR for his technical and management abilities, his knowledge of building codes and standards, his even demeanor and his teaching and mentoring,” said Principal Randal Sickler, AIA.

William Price, RLA, landscape architect and urban planner, joined SWBR in 2018. Price helps to lead the firm’s landscape architecture and urban site design projects along with business development and proposal writing efforts. His extensive portfolio includes the design and entitlements for several waterfront and historic preservation projects. He serves as the chairman of the Town of Brighton Planning Board and is a board member of the Community Design Center of Rochester. He received a master of landscape architecture from the State University of New York College of Environmental Science and Forestry and a bachelor of environmental design from the University of Massachusetts.

“Bill’s expertise as a landscape architect and urban planner, as well as his business development skills, have helped our landscape group prosper and positively impact our clients,” said Don Naetzker, RLA, landscape architecture manager.

Kristin Purdy, AIA, CSI, LEED AP BD+C is a project architect and member of Board of Directors. As part of the firm’s Education Studio, Purdy works with clients and the design team to develop a project’s program and design solution, overseeing projects from programming through construction administration. As SWBR’s sustainable design manager, she works to maintain the firm’s ongoing commitment to the environment by integrating sustainable best practices into design projects and our office culture. She graduated from the University at Buffalo with a bachelor of science in architecture.

“Kristin is a skilled and incredibly organized project manager with the ability to apply her skills to many different project types, from a beautiful performance hall, to research laboratories or even sports facilities. Our clients love working with her, she’s the ultimate team player,” said SWBR Principal Steven Femaays, AIA.

Keith Sylvester, chief information officer, has been with the firm for more than 20 years and manages all IT systems for the firm. Sylvester is the lead information technology (IT) decision maker and is responsible for strategy, design, implementation, utilization of technology and data security. He also oversees the firm’s Technology Department, which uses virtual and augmented reality, 3D modeling, Revit and drone technologies to better assist the design process.

“Keith does so much more than keep our systems running and safe. He ensures our firm is at the forefront of new technology, helping us enhance our client services and design better performing, more sustainable buildings,” said Tom Gears, AIA, SWBR president.
Our meeting locations have changed and additional details will be available monthly. Venue ideas requested - we are soliciting input regarding other possible venues for our meetings.

**Ballot slate for 2020-2021 election:**

**President**
- Wencheng Wu
- University of Rochester

**VP Programs**
- David Odgers
- OdgersImaging

**Treasurer/VP Membership**
- Roger Triplett
- Xerox Corp.

**Secretary**
- Joanne Weber
- Kodak retired

**Councilors**
- Peter Burns
- Burns Digital Imaging
- Bruce Pillman
- L3 Harris Technologies Inc.

**SWBR News, continued**

**SWBR Promotes Four Employees to Shareholders of the Firm**

SWBR announced that Candace Gonnella, Elvedin Krupic, Michael Picard and Jessica Wade have been named new associates and shareholders of the firm.

Candace Gonnella, NCIDQ, interior designer, has been with SWBR since 2016. Gonnella is responsible for design concepts, presentation boards, monitoring current sustainable products and trends, and space planning for the firm’s key clients. She also managed the major interior renovation of the firm’s Rochester office in 2018.

Elvedin Krupic, technical coordinator, joined in 1996. Krupic, a Level 2 Certified Infrared Thermographer, is SWBR’s roofing design expert, involved in almost every roofing project at the firm.

Mike Picard, CDA, chief financial officer, joined the firm in 2018. Picard is responsible for implementing strategic financial and operational plans and managing the firm’s overall corporate governance.

Jessica Wade, AIA, project architect, has been with SWBR since 2012. Wade manages construction projects from conceptual design through construction completion. Her responsibilities include ensuring the design meets the client’s specifications and that the project is on time and on budget.

SWBR has 56 shareholders.
CORONAVIRUS (COVID-19) RESOURCES FROM NSPE

The world finds itself today in a crisis unlike any in recent memory. As you strive to stay on top of your professional and personal life, remember that NSPE is a resource for you.

Watch this video (https://www.youtube.com/watch?v=JEYsj-PYNP4&feature=youtu.be) message from NSPE Executive Director Mark Golden, “Dark Days Shine New Light on Profession, Community.” It is an early look at his column for the May/June PE magazine.

And access NSPE’s dedicated pages of resources, including public documents from NSPE’s Government Relations team that aggregate state-level legislation on support for small businesses, and changes to licensure renewals and requirements. The documents update in real time.

As Golden put it, “This crisis has forced us to learn to carry on in new ways, when the traditional work environment has been taken away from us. And the professional engineering community has responded heroically. Every day you are continuing to do what you can, overcoming challenges and disruptions — and what you can do is proving to be a lot.”

Free Webinar: Federal and State Covid-19 Response
On April 2, 2020 NSPE hosted a free webinar outlining actions that have been taken at the federal and state level affecting licensure.

The recording of, “Federal and State Covid-19 Response: Effects on Licensure and Small Businesses,” is now available for free through Shop NSPE.

Click here for more resources (https://www.nspe.org/resources/coronavirus-covid-19-resources)

2020 ENGINEERING SYMPOSIUM

As you know, the COVID-19 virus has affected all large public gatherings, and the 2020 Engineering Symposium could not be held as scheduled on April 28th 2020. We have re-scheduled the event for Tuesday, September 22, 2020. If you have already registered for the event, you don’t have to do anything - you will be advance registered and paid for the event in September. If you would like a refund, there will be no fees or penalties. Please email res@frontiernet.net and we will process a refund. Please allow up to one week for Lynne to credit your account. Our goal is to re-open registrations by August 1st and host a great event under better circumstances. Thank you for your understanding and stay safe.

WHAT IS A PE?
https://www.nspe.org/resources/licensure/what-pe

As always, we encourage active membership in the Monroe Professional Engineers Society. We are constantly striving to improve your membership but we always need more help. If you are interested in becoming an active member or have any questions, please email me at CKambar@apd.com or contact MPES through our website at www.monroepes.org/contactus./

Christopher V. Kambar, President, MPES
IES ROCHESTER SECTION

WE HOPE THIS FINDS YOU ALL DOING WELL. AS OF THIS TIME, OUR ANNUAL GOLF OUTING IS STILL SCHEDULED FOR LATE JUNE. WE WILL CONTINUE MONITORING THE SITUATION AND WILL ADJUST AS NEEDED. ONLINE REGISTRATION IS NOT YET AVAILABLE. UPON CONFIRMATION THAT WE ARE DEFINITELY GOOD TO PROCEED, WE WILL SEND AN ANNOUNCEMENT. UNTIL THEN, PLEASE BE SAFE AND STAY HEALTHY.

SAVE THE DATE

Please join us for our inaugural

Buffalo and Rochester Joint IES Golf Outing

“Shotgun Start” at Noon

Monday June 22, 2020

Lunch served starting at 11

Stafford Country Club
8873 Morganville Rd. Stafford, NY 14443
(585) 343-9281

Online registration soon on our website at
www.iesrochester.org
Annual 18-Hole Scholarship Golf Tournament

Friday, May 29, 2020

Proceeds will benefit the ASCE scholarship program to support future civil engineers.

Four-Person Scramble Format
Webster Golf Course - East Course
440 Salt Road, Webster, NY

Registration, Lunch, and Social Hour: 12:00 p.m. – 1:15 p.m.
Shotgun Start: 1:30 p.m.
Dinner will be served following the tournament.
Cost: $55/person includes lunch, driving range, 18 holes, cart, dinner and drink tickets.

GREAT PRIZES

Colleagues, friends, and family are all welcome to join the fun. Foursomes and individual sign-ups are welcome.

To register or sponsor a hole, contact Josh Rodems.
Phone: (585) 232-5135 or jrodems@bergmannpc.com

Reservations and Payment Due by May 15, 2020

COVID-19 Update:

We are carefully monitoring the current health and social distancing situation. If by early May we are still unable to have large social gatherings, we will push to tournament to a date later in the summer.

Registrations and sponsorships are still welcomed at this time. Reservations will be held for the May 29th date or the later date if necessary.

Thank you for your continued support of ASCE but more importantly, thank you for your part in helping to stop the spread of COVID-19. Be safe, be healthy, and we look forward to seeing you on the golf course soon! – ASCE Rochester Section Board

Please make checks payable to ASCE – Rochester Section.

Corporate Sponsorships:
$125 – Hole Sponsorship (Sign)
$175 – “Longest Drive” or “Closest to Pin” Sponsorship

Participant Sponsorship Packages:
(All packages include registration for four golfers and hole sponsorship.)
$550 – Drink Sponsor
$600 – Driving Range Sponsor
$650 – Lunch Sponsor
$700 – Dinner Sponsor
$750 – Cart Sponsor (Company Ad in Each Golf Cart)

Send Completed Form and Payment to:
Josh Rodems
Bergmann
280 East Broad Street, Suite 200
Rochester, New York 14604
Phone: (585) 232-5135
jrodems@bergmannpc.com

Reservations and Payment Due by May 15, 2020
CALL FOR PAPERS

32nd ANNUAL BRIDGE CONFERENCE

Friday, November 13, 2020 – SAVE THE DATE!!

Millennium Airport Hotel Buffalo
2040 Walden Avenue
Buffalo, New York 14225

The Western New York Chapter of the Association for Bridge Construction and Design is seeking presenters for the 32nd Annual Bridge Conference! This conference has proven to be a very popular event that attracts close to 300 bridge industry professionals interested in exchanging ideas and information regarding the design, fabrication and construction of bridges.

You are invited to submit abstracts related to all aspects of bridge design, engineering and construction (regardless of the project type and size). Some topics of interest may include, but are not limited to the following:

- Aesthetics/Contextual Design
- Bridge Management Systems
- Case Studies and Planning Projects
- Codification of Bridge Design
- Design, Analysis and Modeling
- Environmental Impact Assessment
- High Performance Materials and Components
- Inspection, Rehabilitation and Retrofit
- Maintenance and Evaluation
- Procurement, Construction and Project Management
- Reliability and Risk Management
- Safety and Serviceability
- Seismic and Wind Design
- Security against Terrorist Attack
- Smart Structures
- Vehicle Bridge Interaction

Abstracts for potential presentations shall be a maximum of one type-written page and include a description of the topic, the author(s) and presenter(s), and identify the duration of the presentation as either 25 or 50 minutes. Please submit abstracts no later than July 30, 2020 to:

David Jenkinson, PE
Popli Design Group
555 Penbrooke Drive
Penfield, NY 14526

Tel: (585) 364-1634
E-mail: djenkinson@popligroup.com
Dear Colleagues,

The world is a very different place than it was a month ago. The COVID-19 pandemic dramatically altered daily life and forced professional organizations, like IEEE, to adapt to the new realities of social distancing to slow the spread of the Coronavirus.

On April 7th IEEE Rochester held its first entirely virtual Executive Committee Meeting. The meeting recapped many of the spring and early summer IEEE events rescheduled for later in the year or postponed until 2021 and discussed resources to enable future virtual events. The Rochester IEEE Joint Chapters Meeting (JCM) is now scheduled for the afternoon of October 27th and will feature the same collection of speakers, including a keynote by Dr. Katherine Duncan, IEEE USA President-Elect. The IEEE Region 1 Board of Governors meeting was canceled and will be replaced with several virtual meetings to bring the IEEE Region 1 leadership and section chairs together. IEEE Sections Congress, a triennial gathering of IEEE Section leadership from around the world, remains scheduled for August 21-23 in Ottawa, Canada while the organizers await further developments. Our next virtual ExCom meeting will take place on May 5th at noon (see vTools 228620 for details).

Students and sponsored student activities were also impacted by measures taken to reduce the spread of COVID-19. The 2020 E3 Fair for middle school students was canceled. The Terra Rochester Finger Lakes Regional Science & Engineering Fair (TRFSEF) for middle and high school students was rescheduled and held as a virtual science fair with each student project presented to a panel of judges via video conferencing. Our IEEE student members were sent home to complete the semester online as college campuses closed. This, in turn, forced many professors to put in late nights to adapt their courses for virtual learning and assessment. The 2020 IEEE Region 1 Student conference, which was to be held at the University of Maine in Orono on April 17 to 19, 2020, was also cancelled.

The sudden shifts in education due to COVID-19 precautions are mirrored in industry. Telecommuters are no longer a minority as companies with a traditional central office location suddenly adjusted to a distributed workforce with a majority of employees working from home. While the current changes and environment are difficult, a sustained shift to a telecommuting workforce may prove to be a great opportunity for the Rochester Region to grow and diversify.

In the meantime, IEEE strives to bring its members together through virtual events and online training until we can resume in-person events that connect the local engineering community.

Stay healthy, and best regards,
Terra Rochester Finger Lakes Science and Engineering Fair

On Saturday, April 4, a virtual Terra Rochester Finger Lakes Science and Engineering Fair took place. Approximately 56 students presented their projects, each in one of seven assigned virtual rooms. In each virtual room a supervisor and about five judges scored the 4 presentations assigned to that room. The morning sessions saw and heard project presentations from senior-level (high school) students, and the afternoon sessions had 6th, 7th, and 8th-grade student presentations. The judges individually scored the presentations using an online form and made special award recommendations after group discussions. The top presenter from each senior session went on to the second round.

Judging for the second round took place Monday, April 6th, in evening. The finalists presented their projects to a select group of judges who determined the highest level awards for the virtual fair. Rochester IEEE Section members Mark Schrader and Ram Dhurjati Ph.D. served as judges in the first round, and Ram served as a judge in the second round. Both Mark and Ram are founding (IEEE) Terra Rochester Finger Lakes Science and Engineering Fair members and serve on the Organizing Committee.

IEEE Member Benefits

The IEEE provides many benefits to members, and some of them may be of particular interest during the COVID-19 pandemic:

- Tips for these times, when working from home is the new normal: https://insight.ieeusa.org/articles/working-remotely-the-new-normal/
- Free IEEE Learning Network Resources: https://innovationatwork.ieee.org/ln-promotions/
- IEEE continuing education courses to learn from home: https://innovationatwork.ieee.org/lnfive/
- Enhanced IEEE Member Digital Library access (for subscribers): https://ieeexplore.ieee.org/Xplore/
- The IEEE App for mobile devices: https://app.ieee.org/

IEEE membership may be required for these resources.

Save the Date: October 27, 2020 IEEE Rochester Section Joint Chapters Meeting

The IEEE Rochester Section is rescheduling its joint meeting for all IEEE chapters, which was to be held in April. It is being rescheduled for Tuesday, October 27th, 2020. We apologize to our members who were looking forward to this. Plan ahead to save $20—early registration closes September 30th.

IEEE Rochester Section Events

Please check the events to ensure they are as scheduled below. Visit events.vtools.ieee.org/m/vtools/# for details about any of these events.

<table>
<thead>
<tr>
<th>Event</th>
<th>Vtools #</th>
<th>When</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCOM Meeting</td>
<td>228620</td>
<td>May 5th, 11:50 – 13:00</td>
<td>Via Webex</td>
</tr>
<tr>
<td>2020 Joint Chapters Meeting</td>
<td>220441</td>
<td>October 27th, 15:00 – 21:00</td>
<td>Louise Slaughter Hall, Rochester Institute of Technology</td>
</tr>
<tr>
<td>Body Language and Networking</td>
<td>225078</td>
<td>October 27th, 17:30 – 18:30</td>
<td>Louise Slaughter Hall, Rochester Institute of Technology</td>
</tr>
</tbody>
</table>
President’s Message
For most of us, our lives have changed greatly since the last publication. Work from Home (WFH) is the new normal for many. We were sorry to have to cancel our March lunch meeting. We are trying a webinar version for April. For now, we will publish May as if we can get back together in person. If not, we will try for another webinar. We hope to still offer PDH credits for NYS PE’s, but they may be in a new format for us through our ASPE Society Certification process. If you need additional PDH credits, many vendors have been offering on-line education. Contact any of our board members if you need help finding something.

In June we hope to have our annual golf outing. Mark your calendar for Thursday, June 11 at 10:00 am, Victor Hills. We will obviously follow all State mandates and will keep you posted if this needs to be postponed.

Stay safe, enjoy your WFH time, and we hope to see everyone out and about real soon!

Jennifer Wengender, P.E., CPD
Rochester Chapter President

Meeting Notice – Save the Date
Topic: Domestic Hot Water Recirculation Options
Speaker: Bob Oursler, Urell
Date: Wednesday, May 20, 2020
Time: 12:00 noon – 1:30 p.m. (please arrive by 11:50 am)
Place: Valicia’s Ristorante, 2155 Long Pond Rd., Rochester 14606 (just north of Route 31, Gates)
Credits: 1 PDH - pending approval
Cost: $20.00 (member or guest), check or cash at door.
RSVP: To Dave Jereckos (341-3168), or djereckos@ibceng.com by May 15th.

(Chapters are not authorized to speak for the Society)
The first VIRTUAL science fair in our region!

COVID-19 nearly cancelled the Terra Rochester Finger Lakes Science and Engineering Fair, but the combined determination of the Fair Committee and the support of Terra ultimately succeeded. On Saturday, April 4th, judges gathered for an extraordinary seven hours from RES, across the Finger Lakes region and even Texas and Virginia in “virtual rooms” to interview middle and high school students about their independent science research and engineering design projects. Despite shuttered schools and labs, locked-away project displays, and interrupted data gathering, 54 youth prevailed, presenting their work and fielding judges’ questions!

Find a complete list of TRFSEF honorees at www.terrafairs.org/Rochester. Here we will feature here our Grand Awardees – students selected to represent the fair at more advanced competitions or to receive scholarships for continued research. Whether these happen or not, the students have WON!

Regeneron International Science & Engineering Fair – Elizabeth Cotter (gr 12) and Madeleine Cotter (gr 10) join a lifetime network of thousands of international STEM leaders and other Finalists from 80 countries.

GENIUS Olympiad – Yingyi Chen, Riley Leibecck and Ereny Morcos (all gr 12) will receive $10,000 scholarships to Rochester Institute of Technology!

NYS Science Congress – Micah Kim (gr 9), George Morcos (gr 12) and Sara Morcos (gr 12) now add this honor to their school permanent records.

Broadcom Masters – Cole Bard (6th gr) and Cody Ditkowski (gr 8) advance to the national middle school competition of the Society for Science and the Public.

Stockholm Junior Water Prize – Sydney Haas (gr 10) will submit her research to the Water Federation’s New York State competition.

Clarkson Young Scholars Award – Amy Feng (gr 10) will join a one-week research project at the Clarkson School, also earning a $4,000 scholarship to Clarkson University.

St. John Fisher Scholarship – Riley Leibecck (gr 12) may take a St.JF course at no charge.

Finger Lake Community College STEAM Camp – Kidest Misganaw (gr 8) will one of FLCC’s one-week summer camps at no charge.

Energy 21 Award – Akosua Essah (gr 9) will be the personal guest of Energy 21 founder Dr. Rhea Jezer for opportunities replacing the 2020 symposium.
President's Message

I hope everyone’s family and friends are doing well during these difficult times. All of us have been impacted by the COVID-19 virus in one way or another. ASHRAE is no different. As a result, necessary changes have been made in an effort to maintain some consistency with our programs and services we offer.

The annual golf outing and picnic has been postponed. It will be combined with our fall clam bake with a time and place to be determined. Over the years ASHRAE has benefitted from the generosity of the local community. Well now we believe it is time to give back. The officers and Committee Chairs have agreed that 25% of the proceeds raised for the clambake will be donated to Foodlink NY (www.foodlinkny.com). The Corona virus has put a strain on so many, especially those less fortunate than us. Foodlink NY has partnered with Rochester City Schools to provide meals and emergency food boxes to those in need. More details on the clambake and how to donate will follow.

Another change for us will pertain to our upcoming meetings. Video seminars will be offered for the foreseeable future. Our webinar was titled “A Different Approach with Cloud Based Controls,” presented by Mike Hoppe of Daikin Applied on April 10th at 11:30.

YEA (Young Engineers in ASHRAE) also hosted a webinar on April 23 at 5pm. The topic was “Control Systems & Communication Protocols.”

Please continue to check out our website at www.rochester.ashraechapters.org for information on upcoming chapter meetings, current officer list and contact information, chapter newsletters, and more! Also take a minute and like us on Facebook at www.facebook.com/#!/ashraerochester.

Most importantly, please follow the guidelines placed by the CDC and health officials so we may get through this as quickly as possible and put all of this behind us. Please be safe and stay healthy.

Tom Streber, P.E.
2019-2020 President, Rochester Chapter
May 2020

General Membership Meeting
Finger Lakes Dinner
May 14, 2020

Time:
6:00 PM

Location TBD

Board of Directors Meeting
June 18, 2020

Time: BOD Meeting 6:00 PM

40 & 8 Club
933 University Avenue
Rochester, NY 14607

Professional Affiliations
- New York State Association of Professional Land Surveyors, Inc.
- National Society of Professional Surveyors
- Rochester Engineering Society
Electrical Association

40th Annual Invitational Golf Outing

Monday
July 13, 2020
LeRoy Country Club
7759 East Main Rd, LeRoy NY 14482

Schedule & Golf Package
10:00 a.m. SHOTGUN START at Club House
[Registration opens at 9:00 am]

REGISTER EARLY FOR DISCOUNTED PRICE!
EAWNY Members: $380/Foursome ($400 after 6/15)
Non-Members: $400 ($420 after 6/15)
Price is determined by date payment is received!

Price Includes: 18 Holes of Golf, cart, coffee and donuts at registration, lunch at the turn [choice of hotdog or hamburger, chips and beverage], one free beverage ticket (good at the beverage cart), buffet dinner and prizes.

Beverage Tickets
Each golfer receives one free beverage ticket that can be used at the Beverage Cart. Additional drinks may be purchased directly from the Beverage Cart Driver [cash only].

Hole Sponsorship
Here’s an opportunity for your company to be a sponsor of EAWNY’s 40th Annual Invitational Golf Outing. A $60 per hole sponsorship will display your company name at the tee for all EAWNY member golfers and guests to see. Show your company’s contribution and dedication to the Electrical Association and check the appropriate box on the Registration/Sponsor Form.

Buffet Dinner
Even if you are not a golfer, reserve now for dinner. Tickets are only $25 per person. Come out early to enjoy LeRoy Country Club’s facilities. Join the golfers for cocktails before dinner.

Prize Donations
Prizes are needed and will be greatly appreciated. The value should be approximately $15 or greater. Donations indicated on Registration/Sponsor Form will be recognized in the program.

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Email: PVars@bmepc.com

American Society of Civil Engineers, Rochester Section
President, Joshua T. Rodems, PE, Bergmann, Rochester, NY. 585-498-7944.
Email: jrodems@bergmannpc.com

American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Rochester Chapter
President, Thomas Streber, PE, tstreber@jwswanson.com.
Email: ashraerocnews.com

American Society of Mechanical Engineers, Rochester Section
Chairman, Steven Ivancic, University of Rochester

American Society of Plumbing Engineers, Rochester New York Chapter
Email: jwengender@clarkpatterson.com

Alfred Steele Scholarship available to ASPE members and their immediate family. Applications due in January each year. Details at https://www.aspe.org/SteeleScholarship.

Association for Bridge Construction and Design
President, William Rugg, PE
Greenman-Pedersen, Inc.
Email: wrugg@gpinet.com

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Email: Matt.Knights@cbbrands.com

Electrical Association
Executive Director, Karen Lynch
Email: karen@eawny.com
President, Russ Corcoran, Landmark Electric, 585-359-0800.
Email: rusc@landmarkelectric.net.

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585-737-6881
Email: jaredransomis@gmail.com

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Email: drusnack@bergmannpc.com

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Email: bruce.pillman@gmail.com

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Email: poojith.kalluru@alstomgroup.com

International Council on Systems Engineering, Finger Lakes Chapter
President, Jack Riley
Email: jackri2139@hotmail.com

New York State Association of Transportation Engineers, Section 4
President, Paul J. Spitzer, PE, NYS DOT Region 4, Genesee Valley, 1530 Jefferson Road, Rochester, NY 14623. 585-272-4890.
Email: paul.spitzer@dot.ny.gov
NYSATE has scholarships available for dependents of members who are or plan to enroll in a post-secondary university of accredited business or vocational school (undergraduate only). Some members may also be eligible. Information will be posted in the early spring at www.nysate.org

New York Water Environment Association Inc., Genesee Valley Chapter (www.gvcnywea.org)
President, Bill Davis, 585-381-9250
Email: william.davis@mrbgroun.com

Society of Plastics Engineers, Rochester Section
President, Marcia J. Lam, RIT
Email: mjleme@rit.edu

Terra Rochester Finger Lakes Science & Engineering Fair
Director, Mary Eileen Wood, 315-422-2902
Website: TerraFairs@terraed.org
Awards and scholarships available. Visit the website for details.

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BE SURE YOU CONTACT YOUR AFFILIATE BEFORE ATTENDING ANY EVENTS! WITH THE COVID-19 CRISIS MANY EVENTS ARE BEING CANCELLED OR RE-SCHEDULED. WE HOPE EVERYONE STAYS SAFE AND HEALTHY!

~ RES Board of Directors

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