



# Columbus Engineer

## Franklin County Chapter

A chapter chartered by the Ohio Society of Professional Engineers.

P.O. Box 69

Reynoldsburg, OH 43068-0069

April 2022

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### President's Message

Baba Yahaya, P.E.  
– FCC President

FCC-OSPE conducted election of officers and trustees in March for service beginning on July 1, 2022 for the 2022-2023 administrative year. I would like to thank all those who participated in this process by casting your votes. Results of the elections will be announced via email and in the May publication of this newsletter.

Our continuing professional development (CPD) hour program in March featured Ann King, Chelsey Stillings and Travis Hall, all of Ohio Penal Industries, presenting on the topic “Ohio Penal Industries (OPI) Past, Present and Future”. I would also like to thank Ann, Chelsey, and Travis for taking the time to introduce OPI to us.

Refer to the 2021-2022 Calendar page of this publication for our program schedule. Our chapter programs are free to members of NSPE and OSPE/FCC. I would like to encourage our members to check and renew your NSPE/OSPE and our OSPE/FCC membership and/or update your contact information as applicable.



### OSPE-FCC

### April Virtual Program



**Date:** Thursday, April 21, 2022

**Location:** Zoom Meeting, 12:00pm -1:00pm

**Registration:** Registration closes at 5:00 pm, April 19, 2022

Visit [www.fccospe.org](http://www.fccospe.org) to register on online.

Be sure to include your membership number.

After registration is closed and prior to the presentation a **Zoom** link will be sent to the registrants.

**Cost:** Free to members of NSPE and members OSPE/FCC.

**Title:** “The Grid of Tomorrow: IBRs and Microgrids for Power System Stability”

**Abstract:** Microgrids could become essential to reliable power delivery in-the-near future. As climate change exacerbates extreme weather events, high penetration of Inverter-Based Resources (IBRs) and Distributed Energy Resources (DERs) could contribute to weakening the stability of the grid, if the industry continues to increase these resources without evolving its philosophy of grid protection and control. IBRs are well suited for distributed implementation and could be an effective solution to grid reliability issues, if handled appropriately. With proper planning and sound public policy, design of a

- Continued, pg. 2

**April Program, continued –**

system where most distribution circuits can operate as islanded microgrids for extended times, seamlessly disconnect, and reconnect to the transmission grid to help the system stability is within reach. Local governments and municipalities would need to cooperate, perhaps in coordination with federal policy mandates. This presentation displays this vision of the future and presents a patent pending protection philosophy to complement the existing distribution fuses to isolate faulted branches when islanded.

**Biography:** Sebastien Billaut, PE is a manager at Commonwealth Associates. Mr. Billaut holds an MS in Mechanical and Electrical Engineering from Ecole Speciale des Travaux Publics in France and a Professional Engineering license. He has 29 years of utility-related engineering experience, including 21 years of setting protection relays and power system modeling and 16 years of management. He is the patent author for a microgrid fault management technology, and actively participates in the development of industry-wide standards that address the design of microgrid protection systems and reduction of outage time on distribution systems. He serves as Chair of the IEEE PSRC Working Group K29 and D44 and is a voting member of IEEE PSRC Subcommittees D (Transmission Line Protection) and K (Substation Protection) and the Main Committee. He is currently contributing to IEEE 1547.x and IEEE 2800.x (multiple main standard related guiding documents).



*A certificate for 1 hour of Professional Development for attending the program will be emailed to you.*



**SAVE THE DATE!**

**Nathan Abele, P.E.**  
– FCC Secretary

Please plan to join us for our Awards Dinner and Officer Installation. We are planning to return this to an in-person event on May 19, 6:30 PM at a Columbus area restaurant. Be on the lookout for an invitation and registration with additional details.

**OSPE-FCC Mentorship Program  
Launch April 2022**

Did you join OSPE-FCC to connect with engineers who are leaders in their field? If so, the OSPE-FCC Mentorship Program is here for YOU! The program will kick off in late April, running through August 2022. Mentors/mentees will be paired for one-on-one mentorship sessions based on mutual interest. If you are a professional or student member interested in participating as a mentee, please reach out to Young Engineer Trustee Colleen Konsavage at [ckonsav1@gmail.com](mailto:ckonsav1@gmail.com) for more information. The OSPE-FCC Mentorship Program begins!





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## EFO/OSPE Awards Zoom Meeting Announces Mathletes Representing Ohio at National Competition

by Tina Sutermeister, PE, FNSPE

EFO/OSPE Awards Zoom meeting to announce the OHIO Mathletes that will be representing the State of Ohio at the National competition on May 7 - 11th. Franklin County Chapter has 3 of the top 4 student MATHLETES.

- 2nd - Reese Zong of Eversole Run Middle School (Coach: Brian Williams)
- 3rd - Devin Zhao of Olentangy Orange Middle School (Coach: Phil Callaghan)
- 4th - Suvam Konar of Worthingway Middle School (Coach: Jenny Adesso)

Way to Go Franklin County Chapter and our MATHCOUNTS Coordinator - Ben Brown!!

**CONGRATULATIONS!!**



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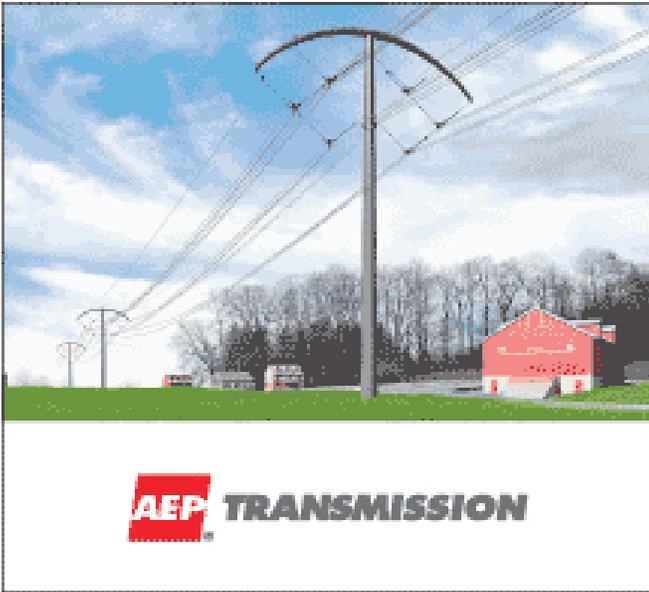
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## Electrical Contractor Magazine 2022 Construction Industry Forecast

by Ken Goodson, PE, HFDP, LEED AP

Electrical Contractor Magazine recently published their Construction Industry forecast for 2022. They used information from Richard Branch, chief economist for Dodge Data & Analytics, and Kermit Baker, chief economist for the American Institute of Architects (AIA). “At the 2022 Dodge Construction Outlook, Branch said he expects total construction to increase 6% in 2022 to \$946 billion after a 12% increase in 2021. He cautioned ... that although the construction market will grow next year, product pricing, material shortages, and worker shortages will be some of the biggest issues... Long term, construction starts should improve, fed by an increase of nonresidential building projects in the planning pipeline and the recent passage of the Infrastructure Bill,” he said in the release. “Both will provide meaningful support and growth to construction in the year to come.

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**2022 Construction Industry Forecast, continued –**

This expectation, however, must be tempered by the significant challenges facing the industry: high prices, shortages of key materials, and the continued scarcity of skilled labor. While healing from the pandemic continues, there’s still a long road back to full recovery.”

“AIA’s Baker is optimistic about the construction industry’s fortunes in 2022. He says AIA architects are seeing more demand for retrofit work. “Even prior to the pandemic, architecture firms were reporting that almost half of their billings, on average, resulted from renovations, rehabilitations, retrofits, additions, and historic preservation projects on the existing building stock,” he said in a post about AIA’s Consensus Construction Forecast. “This was before concerns developed regarding how buildings could be made safer for employees and customers with heightened health concerns.””

“After declining about 2% last year, the AIA Consensus Construction Forecast Panel in its mid-year update is projecting that spending on



nonresidential buildings will decline an additional 3.9% in 2021 — an upgrade from the 5.7% decline forecast at the beginning of the year — and that 2022 will see a 4.6% increase in spending. The strongest performers this year are expected to be health care facilities (1.4%), and a few others should see only modest declines — retail (1.3%); religious (0.9%); and education (2.1%). However, in 2022 virtually all the nonresidential building sectors are expected to see healthy growth, paced by lodging, as well as amusement and recreation, both of which saw steep declines during the pandemic.”



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**The Dangerous Push to Downgrade Professional Licensing**

*The systems shouldn’t be diluted in the name of “reform.” Licensing benefits women and minorities, brings higher wages and protects the public.*

As governors and state legislators work to boost the economy in the face of inflation, supply-chain disruptions and lingering challenges from the coronavirus pandemic, the issue of licensing reform is once again coming to the fore.

It is disappointing but not surprising that a small but vocal group of hardliners, backed by wealthy and powerful special interests, is trying to convince state lawmakers that the silver bullet for these challenges board.

To hear them tell it, these proposals would eliminate barriers to entry into the workforce and provide an

- Continued, pg. 5

**Dangerous Push to Downgrade, continued -**

economic boon to workers, especially women and people of color. However, their pitch crumbles upon contact with reality — notably the latest economic research on the subject.

Case in point: The Alliance for Responsible Professional Licensing, for which I serve as executive director, partnered with an internationally recognized research firm, Oxford Economics, to analyze all professions and occupations in the U.S. and found that licensing is associated with 6.5 percent higher wages on average.

The report also found that women and minorities in job fields requiring advanced education and training (architects, CPAs, engineers, landscape architects and surveyors, among others) benefit significantly from licensing. For these workers, the results show that a license narrows the gender-driven wage gap by about one-third and the race-driven wage gap by about half.

The report makes clear that licensing impacts professions, occupations and populations differently and is a clear driver of higher wages and stronger economies. It lays out a bevy of red flags to lawmakers and policy-setters who are considering overbroad legislation to roll back their state licensing programs.

The anti-licensing crowd consistently fails to make the critical distinction between occupational licensing and professional licensing. Occupations are significantly different from professions with high public impact such as architects, CPAs, engineers, landscape architects and surveyors. As such, the licensing systems governing professions are more rigorous and should not be diluted in the name of “reform.” One size does not fit all. It is this persistent failure to tell unlike things apart that ends up harming the very people the proposals purport to help.

If anti-licensing measures eliminate a pathway for success and a more even playing field, surely there must be some good these measures deliver? Unfortunately, no. The same proposals that would take away a powerful equalizer for opportunity and earning also put consumers and the public at risk.

It is no accident that during their most recent legislative session, West Virginia lawmakers rejected a so-called “universal licensing” bill after outcry from their constituents about its deleterious consequences. The defeat of this bill marks the third time in three years that Mountain State lawmakers have rejected this type of anti-licensing proposal. In recent years, lawmakers from Wisconsin to Arizona have also flirted with the idea of weakening or eliminating professional licensing, only to pull back such proposals when they realized the tremendous risk they would pose to their constituents.

Most Americans recognize the critical role that licensing, and licensing boards play in protecting the public. A 2020 survey conducted by Benenson Strategy Group found that 75 percent of voters believe that it is important to ensure qualifications for professionals in certain industries. A majority of voters believes that current professional licensing requirements protect the public and should not be reformed, and more than 70 percent believe that it’s important to regulate professionals in accounting, engineering, architecture, landscape architecture and related fields with high impact on the public’s health, safety and welfare.

This public sentiment is why so many lawmakers are rightly wary of the anti-licensing proposals being floated in their statehouses. Time and again we have seen that such a broad-brush policy not only does not work but actually harms the people it claims to help: working professionals and the public at large.

*(Excerpted from NSPE DAILY DESIGNS, March 31, 2022 with photographs removed)*



## 2021-2022 CALENDAR

DATE	TIME	DESCRIPTION
Sept. 14	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Sept. 16	12:00 p.m.	Program: Strategies for Learning Through the Deployment of New Grid Technologies, with Presenters: James Wolf, Morgan Love - (Virtual)
Oct. 8	5:00 p.m.	Deadline for October Columbus Engineer
Oct. 12	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Oct. 21	12:00 p.m.	Program: Leveraging "Smart" Technology to Maximize Use of Public Parking in Historic District, with Presenters: Scott Tourville, Jennifer Alford - (Virtual)
Nov. 4-5		EFO Fall CPD Conference
Nov. 8	5:00 p.m.	Deadline for November Columbus Engineer
Nov. 9	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Nov. 18	12:00 p.m.	Program: Columbus Underground HPFF vs. XLPE Cables and Recent Applications, with Presenters: Brian Swain, Jared Jajack and Eric Hooper - (Virtual)
Dec. 6	5:00 p.m.	Deadline for December Columbus Engineer
Dec. 14	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Dec. 16	12:00 p.m.	Program: P&C Engineering 101: High Voltage Power Protection Basics, with Presenter: Colleen Konsavage
Jan. 10	5:00 p.m.	Deadline for January Columbus Engineer
Jan. 11	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Jan. 20	12:00 p.m.	Program: Space Resources and Additive Manufacturing: A Flexible Solution for Future Long-Duration Space Exploration, with Presenters: TBD - (Virtual)
Feb. TBD	8:00 a.m.	Regional MathCounts Competition @ CSCC
Feb. 14	5:00 p.m.	Deadline for February Columbus Engineer
Feb. 15	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Feb. 24	11:30 a.m.	Program: E-Week Luncheon
Feb. 23	8:00 a.m. – 3:00 p.m.	Engineer for a Day Program - Cancelled
Mar. 2	5:00 p.m.	Deadline for March Columbus Engineer
Mar. TBD	8:15 a.m. – 4:00 p.m.	Ohio MathCounts Competition (OSPE, see <a href="http://www.ohioengineer.com">www.ohioengineer.com</a> )
Mar. 8	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Mar. 17	12:00 p.m.	Program: Ohio Penal Industries (OPI) Past, Present and Future, with Presenters: Travis Hall, Chelsey Stillings, and Ann King - (Virtual)
Mar. TBD		District Science Day @ CSCC
Apr. 7	5:00 p.m.	Deadline for April Columbus Engineer
Apr. 11	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
Apr. 21	12:00 p.m.	Program: The Grid of Tomorrow: IBRs and Microgrids for Power System Stability, with Presenters: Sebastien Billaut - (Virtual)
May 5	12:00 p.m.	Deadline for May Columbus Engineer
May 10	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
May 19	6:30 p.m.	Chapter Officer Installation & Awards Dinner
May 30	12:00 p.m.	Deadline for June Columbus Engineer
June 14	12:00 p.m.	FCC Board Meeting @ CEC, Inc. and Virtual
June 16	12:00 p.m.	Program: TBD - (Possible Virtual)
July TBD	(TBA)	FCC Budget Meeting - Location to be announced

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