



COUNCIL ON UNDERGRADUATE RESEARCH

## 2024-2025 Elections Engineering Division: Councilor Candidates

**Position Purpose:** The CUR Council is a multidisciplinary body providing advisory input to the Board, so they have a broader perspective when making resource investment decisions. The Council serves in a communication capacity, surfacing key items arising from the Divisions, bridging the insight of the Division to the work of CUR as a whole, and serving as one means of information and resource dissemination from the central organization to the Divisions and members.

### Needed Qualifications:

- Communication: Professional and effective communicators, experienced in difficult conversations and able to hear and disseminate community needs
- Foresight: Individuals able to look to the best interests of CUR into the future when discussing various issues impacting CUR members and higher education
- Creativity: Thoughtful supporters of change, able to think outside the box to find new initiatives
- Collaborative Spirit: Team players making space for all voices to be heard, furthering the collective understanding of the group, and cultivating outcomes to best serve CUR and its membership

*There is 1 individual running.*

*You may vote for the candidate presented to be elected as a councilor for this division.*

Candidate information is presented on the following pages. Click on each candidate name below to be taken to their Information In the document.

- [Mohamed Ben Haj Frej](#)

# Mohamed Ben Haj Frej, University of Bridgeport

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## Engineering Division Nominee

### NOMINEE STATEMENTS

#### Describe your leadership experience both within CUR and extramural.

I am currently employed at IBM as a technical manager. I have managed many teams on different projects. I am also working part-time as an Associate Professor at POST University and as adjunct faculty at Bridgeport University. As for my education, I earned a Ph.D. in Computer Science and Computer Engineering at the University of Bridgeport in 2019. I have a Master's Degree in Electronics Engineering.

On a volunteering basis, I have so far advised three Master's theses. I have engaged young students at Chase Collegiate School through the EDS-ETC Engineer Demonstrating Science, an innovation program.

For six years, I served as Vice-President of the Board of Directors of a non-profit school. After contributing to its inception, my main functions consisted of the following:

- Manage the board of directors and hire new board members.
- Hiring and management of teachers and administration personnel.
- Applying for and managing federal and state grants for the school.

I am also a member of:

- The Editorial Board of the International Journal of Engineering and Technology.
- The CISSE Technical Committee.
- IEEE and ACM.

#### How will your skills help the Council successfully uphold its charge?

By joining the council, I will align with its mission to support and promote high-quality undergraduate student-faculty collaborative research and scholarship. I strongly believe in diversity and inclusion in undergraduate and graduate research, as well as expanding the opportunities for research exchanges, research collaboration, and field research in international settings, and I am excited to join in that respect. On the other hand, with my experience in developing courses, I will help encourage integrating and building undergraduate Research into curriculum and coursework. I believe it is essential to measure progress, as it relates to innovation and collaboration in undergraduate research, by helping examine the outcomes of undergraduate research on students, faculty, curriculum, and institutions.

### NOMINEE ABBREVIATED CV

An abbreviated CV highlighting the candidate's accomplishments with respect to undergraduate research is available on the next page.

# Mohamed Ben Haj Frej, PhD

203-376-2528 • mohamedbenhajfrej@gmail.com • [Publications & Patents](#) • [LinkedIn](#)

## Technical Manager

Senior leader with more than 15 years of success in transforming staff into skilled, cohesive teams equipped with the tools and leadership needed for success. Experienced educator who can enhance staff competency through coaching and mentorship to accelerate success. Fine-tuned leadership skills essential for translating needs into concrete strategies and objectives aligned with all goals while steering the end-to-end completion of concurrent, complex project lifecycles.

Team Leadership | Project Management | Performance Management | Staff Training & Mentorship | System & Software Security  
CI/CD | Agile | Program Management | Automation | Strategic Planning | Process Improvement | Risk Management

## PROFESSIONAL EXPERIENCE

**IBM, Southbury, CT**

**2021-2024**

### Technical Program Manager

Demonstrated continued success in multiple roles, including the CIO of Private Cloud Technical Owner, team leader, and mentor. Increased security posture by hosting weekly calls regarding CPC SRE team progress on patching, vulnerability remediation, and health checks. Directed compliance activities with ITSS requirements and middleware patching cycles.

- Inherited and led an offshore team located in India during the remediation of vulnerabilities on the IBM Cloud, which required bridging learning gaps to enable staff to address any ticket received, crafting new resources (SOPs, training videos, knowledge transfer sessions), and equipping the team with the leadership needed to achieve remarkable results in just three weeks.
- Adapted to an unexpected Log4j release by stopping all activities from patching servers (beginning with internet-facing servers) and liaising between SMEs and team members to ensure timely, seamless implementation and enhanced platform security posture.
- Saved significant money by consolidating Blue-Pay for all CPC squads.
- Steered a major project involving a Xentools and CrowdStrike update on all Mici Windows servers.
- Played active during a VPN migration to the AT&T Bluefringe project, a "Vacate Mici" project, and data center closures.

**IBM, Southbury, CT**

**2020-2021**

### Senior Site Reliability Engineer

Translated business needs, the root cause of issues, and feedback gained from cross-functional staff while automating all tasks and procedures for the Mici development team. Ensured compliance with security, SLA, and performance requirements by partnering with internal partners and teams. Assembled runbooks and playbooks for new, automated processes. Supported the delivery of quality products through chaos engineering and thorough application and infrastructure resilience testing.

- Improved cadence as the end-to-end developer of CI/CD processes.
- Encouraged long-term sustainability and health for operational development tasks by defining new standard processes.
- Created new opportunities for staff training as the founder of weekly brown-bag Knowledge Transfer sessions.

**Airgas R&D, Cheshire, CT**

**2014-2020**

### IT Manager

Identified and resolved the root cause of encountered issues while leveraging regular monitoring and proactive support to mitigate any potential issues. Oversaw all aspects of network and system management for HA among four sites, corporate networks, and traffic splitting using a new WAN IP in four sites to increase system performance.

- Founded and supported the entire organization's private cloud by gathering RFPs for high-grade colocation companies (ensuring HA and geo-redundancy), locating a third-party auditor, and designing and building hardware compatible with OSS systems.
- Enabled the ability to host a high volume of telemetry devices around the world by optimizing the ACS system.

**Propark America, Inc., Hartford, CT**

**2009-2014**

### IT Manager

Drove customer satisfaction and retention by delivering rapid support and responses to questions while overseeing the entire IT department, including HQ and remote offices. Crafted new recommendations for improvement based on performance data and emerging security issues.

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## EDUCATION & PROFESSIONAL DEVELOPMENT

**PhD in Computer Science and Computer Engineering**, University of Bridgeport

**Euro-Master CITCOM in Telecommunications and Computer Networking**, Telecommunications College

**Master's Degree in Electronics Engineering**, University of Constantine

**Bachelor's Degree in Electronics Engineering**, University of Constantine

**Certifications:** CCNA – Routing & Switching; Microsoft Certified Systems Engineer (MCSE); Microsoft Certified Professional: Cisco and SonicWALL, SCO UNIX (User and Advanced), Oracle/SQL (User and Advanced), Windows NT and Server, Novell NetWare, Visual Basic and C++; IBM Certified Technical Owner; IBM Gold Champion Learner: Mentor, Chatops Practitioner, Consulting Communication Value; Gold Champion Learner: Enterprise Design Thinking Practitioner, Enterprise Design Thinking Co-Creator, Recognized Teacher/Educator

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## TECHNOLOGIES

Jira, Trello, W3Publisher, YourLearning, IBM Cloud (MICi, CPC, SoftLayer, and CIRRUS), Amazon AWS, Microsoft Azure, Google Cloud , Docker, OpenShift, Kubernetes, Ansible (Tower, AWS), Jenkins, Prometheus, Grafana, Icinga, Instana, ServiceNow, XNGIN, MAD, GitHub, CrowdStrike, SOS, OCAP, ITSS, YAML, C++, Java, Visual Basic, Perl, HTML, XHTML, XML, CSS, DB2, CouchDB, Postgres SQL, SQL Server, Oracle, IBM Cloud Backup, Veritas, Quantum, Symantec Backup Exec, NetApp SAN

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## AWARDS

Certificate of Achievement, University of Bridgeport

Tri-State Arab American Association of Architect Scholarship

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## PATENTS

A Mechanism for A Discount Model for selling expired items in cohort grouping, P202102824 (Record ID # 96663370), Invention Publication Number: IPCOM000267939D, December 07, 2021.