

TNTech acm

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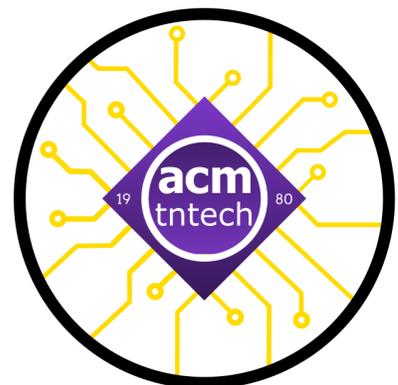
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Association for
Computing Machinery

Advancing Computing as a Science & Profession



ACM Events

02/08	Guest Speaker- SAIC	11 am - 12 pm	Bruner 119
02/08	Game Night	6 pm - 8 pm	Bruner 228
02/22	Student Meeting	11 am - 12 pm	Bruner 228
02/24	Quantum Workshop	6 pm - 8 pm	Bruner 228
03/03	Guest Speaker- Quantum	11 am - 12 pm	Bruner 228
03/08	Student Meeting	11 am - 12 pm	Bruner 228
03/10	Git Workshop	6 pm - 8 pm	Bruner 119
03/22	Game Night	6 pm - 8 pm	Bruner 228
03/29	Guest Speaker- Google	11 am - 12 pm	Bruner 228
04/05	Student Meeting	11 am - 12 pm	Bruner 228
04/05	DSL Workshop	6 pm - 8 pm	Bruner 228
04/12	Guest Speaker- TBA	11 am - 12 pm	Bruner 119
04/12	Game Night	6 pm - 8 pm	Bruner 228
04/19	Student Meeting	11 am - 12 pm	Bruner 228
04/26	Final Meeting	11 am - 12 pm	Bruner 228

You can access a link to our calendar [here](#)

ICPC Meetings

02/09	6:00 pm - 8:00 pm
02/16	6:00 pm - 8:00 pm
03/02	6:00 pm - 8:00 pm
03/05	TBA Competition
03/09	6:00 pm - 8:00 pm
03/23	6:00 pm - 8:00 pm
04/06	6:00 pm - 8:00 pm
04/13	6:00 pm - 8:00 pm
04/20	6:00 pm - 8:00 pm

You can access a link to our calendar [here](#) and members are sent an Outlook calendar invite.

Activity	Start Date	End Date
Team formation contest 1	2022-02-02	2022-02-08
Mathematics lecture: bitwise seive and modular arithmetic	2022-02-09	2022-02-09
Team formation contest 2	2022-02-12	2022-02-12
Team Registration	2022-02-12	2022-02-14
Mathematics lecture: probability	2022-02-16	2022-02-16
ICPC Contest preparation	2022-03-02	2022-03-02
ICPC Contest	2022-03-05	2022-03-05
Data structure lecture: linked list	2022-03-23	2022-03-23
Data structure lecture: stack	2022-04-06	2022-04-06
Data structure lecture: queue	2022-04-20	2022-04-20

SIGHPC Meetings

02/07	6:00 pm - 8:00 pm
02/21	6:00 pm - 8:00 pm
03/07	6:00 pm - 8:00 pm
03/21	6:00 pm - 8:00 pm
04/04	6:00 pm - 8:00 pm
04/18	6:00 pm - 8:00 pm

You can access a link to our calendar [here](#) and members are sent an Outlook calendar invite.



Officer Spotlight

Jim Moroney

Jim Moroney is the SIGHPC Leader of ACM. He is a senior with a concentration of HPC. His dream job would to be a professor since he enjoys the environment that academia and research facilitate, and teaching has always been a passion of his. He feels that being a professor fits naturally into that. Ideally, he plans to first get some amount of practical experience in my field before he is saddled with the responsibility of teaching subjects related to it. His professional work experience mostly comes with research he has done with Dr. Scott, which has primarily consisted of setting up affordable clusters for students to learn on in future classes.

Asides from being an officer in ACM, Monorey is also the chairman of the Autonomous Robotics Club. What he enjoys most about programming/computer science is the problem solving part of it. He says he usually sticks to pretty low level languages like C or even assembly depending on the application, so being able to manipulate a computer so closely to achieve some solution is extremely rewarding to him. Outside of school, he collects and restores vintage computers. He states that unfortunately this has resulted in a closet and office full of CRTS and 30+ year old microchips, but the preservation and history of these old machines is well worth it.



Officer Spotlight

Omar Solanki

Omar Solanki is the Treasurer of ACM-W. He is a freshmen in Computer Science with a concentration in Cybersecurity. After graduation, he plans to pursue a Master's and Ph.D. His dream job is to be a penetration tester.

He has worked with CEROC as an intern, and he says he has learned a lot from CEROC. The thing I most enjoy about Computer Science is high-paying Skills. One fun fact is he is Bilingual.

Faculty Spotlight

Mike Rogers

Mike Rogers, Associate Professor of Computer Science, assists with SIGHPC. He specializes in High Performance Computing, specifically distributed computing. Currently, his research is targeted toward the Smart Grid, Control Systems, and security, but he is also interested in networking, protocols, and high performance parallel computing. Before coming to Tennessee Tech, he worked for Dow Corning Corporation for a total of 10 years, initially as a co-op, then as a part of their pre-professional program, and afterwards as a contractor. He has been teaching professionally for 20 years, but he also taught as a graduate student at the University of Kentucky.

Verbally imparting his knowledge to students. he enjoys figuring out how to explain concepts so that student can understand them, as well as some historical context. He lived through almost 40 years of computer science (He got his first real computer, a Commodore 64, when he was 14), so he gives student an understanding of how we have come to be where we are.

He advices students,

"Go to class. I cannot stress participation in live class enough. Grades, knowledge, understanding, and therefore success at the University is tightly woven to live participation. Human beings are designed such that they get the most out of learning through personal experience.

One more thing. Be a well rounded individual. By well rounded, I, in part, mean your education and skill set. Hone not only your computer science skills, but also your soft skills. As far as computer science goes, have a big tool box that includes knowledge of many languages, algorithms, and paradigms. Learn to separate policy (or paradigm) from mechanism.

Also, do no neglect your spiritual life. There is more to life that just the material."



Faculty Spotlight

Susmit Shannigrahi

Susmit Shannigrahi, Assistant Professor of Computer Science, is specialized in HPC (Networking). He states, "the ability of the Internet to connect machines and people across the globe is what inspired me to work in the area."

While working on his PhD at Colorado State, he worked as a research intern at Lawrence Berkeley National Lab and CableLabs. He has been teaching for 3 years. He enjoys teaching about networking concepts, which can be complex. He enjoys when the students connect the dots and have these "aha" moments.

He advises students to "be proactive and explore new things." He also suggests students to check out the multiple paid positions at all levels (undergraduate, masters, and Ph.D.) for Next Generation Internet Lab (NGIN). They have weekly meetings on Friday at 9AM in Bruner 407, and everyone is welcome to join.

You can find more information about NGIN work [here](#).



Club Spotlight

Autonomous Robotics Club

The TTU Autonomous Robotics Club focuses on completing various autonomous robotics projects designed by students throughout the year. Currently, they are working on 3 projects: an AI/humanoid robot, a drone-based project, and 2 battlebot teams. Members can join as many projects as they want.

They have meetings every Tuesday at 7pm in the iMakerSpace, as well as additional meetings for each project. This semester, they plan to have an internal competition between their two battlebot teams, and they are also working on hosting outreach events.

Robotics Club Chairman Deanna King expresses,

"People who join our organization benefit in a number of ways. We have a strong sense of community here at ARC, and it can be utilized in ways like homework help, recommendation letters, and even just making new, lifelong friends. We also teach skills that one may not learn outside of the classroom, as we allow members to work on projects that may not have the same focus as their major. For instance, a computer science major could work on electrical/mechanical components, or a mechanical engineer could learn how to program. It is very beneficial!"



ICPC Competition

Tennessee Tech will be hosting the 2022 Mid-Central USA Regional Competition.

We have launched our first out of two team formation contests in the ICPC Discord channel. If you are interested in participating in the ICPC competition please complete one of these practice competitions.

ACM members have been preparing for this competition at biweekly meetings, and will continue to do so throughout the semester so come join if your interested!



Quantum Workshop: Simulation of Quantum Networks (Feb. 24)

About the workshop: This workshop will discuss quantum networks and provide hands-on experience on a quantum network simulator, the SeQUeNCe simulator. Recent advances in quantum information science enabled the development of quantum communication network prototypes and created an opportunity to study full-stack quantum network architectures. SeQUeNCe is an open-source quantum network simulator based on discrete event simulation (DES). SeQUeNCe is suitable for simulation of quantum network prototypes that capture the breadth of current and future hardware technologies and protocols.

Bio: Mohamed Shaban is a PhD student in the Computer Science Department, Tennessee Tech. University. He obtained his BSc. degree in Computer Science and MSc. In Quantum Computing, both from Faculty of Science, Alexandria University, Egypt. He used to be a member of Alexandria Quantum Computing Group (AleQCG).

This workshop will be presented on February 24 from 6 - 8 pm in Bruner 228.

Quantum Speaker: Mariam Gado (March 3)

Title of the Talk: The Magic of Quantum Computing and Quantum Circuit Optimization.

About the talk: This talk presents a brief introduction to Quantum Computing, which is one of the most popular and important technologies especially for computer science major students. Then, the talk presents quantum circuit optimization, one of the hottest research areas in quantum computing. A new technique for quantum circuit optimization is then introduced to achieve a minimal quantum cost.

Bio: Mariam Gado is a PhD student in the Computer Science Department at Tennessee Tech University, USA. She obtained her MSc. and BSc. degrees in Computer Science (Special Degree) from Alexandria University, Egypt in 2021 and 2016, respectively. She was a member of Alexandria Quantum Computing Group (AleQCG), a teaching assistant at Egypt-Japan University of Science and Technology (E-JUST) 2021, and a research assistant and laboratory engineer at E-JUST University from 2017 to 2020.

This speaker will present on March 3 from 11 am - 12 pm in Bruner 228.

New Report Showcases Studies on Integrating Computational Thinking into PreK–5th Grade Settings

by Kashaina Nucum

ACM conducted nine studies that measured the impact of introducing elementary school students to various approaches of computational thinking and applying these ideas to general subjects.

Some researchers hypothesized that computational thinking is a fundamental skill to all people since these skills include pattern recognition, decomposition, and abstraction, which would enhance learning in many areas. ACM's studies have found positive results, in which an introduction to computational thinking enriches learning.

You can read more [here](#).

SIGSOFT- Software Engineering

by Kashaina Nucum

SIGSOFT is ACM's Special Interest Group on Software Engineering. Its goal is to improve members' ability to engineer software through encouraging interaction between specialists, researchers, and educators and to promote professional development and ethics.

Their next conference is the ICSE '22: 44th International Conference on Software Engineering on May 21 - 29, 2022 in Pittsburgh, PA. This conference includes forums and discussions for software engineering specialists, researchers, and educators.

You can read more [here](#).

QR Codes

Discord Server



Membership Form



Have any thoughts on additions or changes to the newsletter?

Want to help develop the newsletter?

Email knucum43@tntech.edu!

