



ICDT Autumn Semester 2022

Summary of Individual Accomplishments & Status Reports

<http://ICDT.osu.edu>





ICDT Administration (Julia Armstrong reporting)

Accomplishments

- Director Search
 - Final 2 candidates reported to Dean
- Moving the needle on MS Certificates
 - CSE admin now involved; new \$ model
 - Certificates planned; MS to follow
- Connections with our dedicated Ohio Cyber Reservists
 - Created tasks and plan for FY
 - Supported AU22 CTF
- NCAE-CD
 - CSE Program and as University
- Canon support (web and social)
- "Cyber Careers" Speaker Series launched

Work in Progress

- Rebuilding the Corporate Partners
 - Job transitions and retirements have shrunk the committee
- Organizing the DoD Cyber Scholarship Program at Ohio State (NCAE benefit)
 - Program is for full ride, plus stipend, plus internship (US Citizens)
- ICDT's relationship to MS program
- ICDT's focus on communities of practice
- Form strategic research goals based on O.R. data (Kate)





Gen. Mark Bartman (ret.) - executive consultant

Accomplishments

- OCRI 4th Annual Cybersecurity Education Symposium Oct 12, 2022
 - Supported as a member of the planning committee & represented Ohio State RPC
 - RPC representative to OCRI
- Coordinated 4th quarter reporting information
- Coordinated application to US Cyber Command as a University partner
- Attended OC3 Meetings
- Participated in ICDT Director Search events
- Met with Governor's Cybersecurity Strategic Advisor

Work in Progress

- USCC University Partner Application
- RPC Representative to OCRI & OC3
- NICE Committee engagement
- Follow-up meetings with Gov Cybersecurity Strategic Advisor
- Coordinating a CRADA with the Ohio National Guard for cybersecurity research projects with the 179th Information Warfare Wing in Mansfield.
 - We also need to talk with OSU-Mansfield on academic offerings





Theodore (Ted) Allen – ISE

Accomplishments

- PI for MxD Cybersec. Resilience
- Co-PI for NSA NCAE-C-003-2022
- PI for Honda Vision & Kitting Projects
- PI for TCO Innovator Award: Cyber.
- Co-PI for Goodwill Scheduling
- Winner CAE-NSA Best Paper & Finalist INFORMS Edelman (\$0.5B)
- Presentations: OCRI Symp., Tech. U. Denmark, ICDT, ISE Dept.

Work in Progress

- NSF SatC Medium Proposal
- NSF SatC Frontiers Proposal
- Make Freemium Vulnerability Lists Available Through OhioLINK
- Papers on New Types of Optimal Classification Trees For Security
- Updated Case Study for POMDP
- Paper on Vaccination Campaigns
- Custom Cybersecurity Playbooks





Vimal Buck, CDME

Accomplishments

- OCRI 4th Annual Cybersecurity Education Symposium
 - Represented Ohio State RPC & drove Qadeer's student and CDME material
- Attended OC3 Meetings: General, Education and Workforce, Cyber-Protection committees, Subcommittee for Education and Workforce
- Participated in ICDT Director Search events
- Participated in the Ohio Cyber Reserve
- CO-PI MxD Cybersec. Resilience
- Coordinated proposal and funding across OSU for RAPIDS 2022 grant: Robot lab and PLC Trainers for Cybersecurity training, 5G hardware
- CDME Research for Secure America was featured on
 - OSU Main Page for October 2022
 - OSU National Commercial
 - OSU Alumni Magazine Fall and Winter
 - Columbus Dispatch Business Section

Work in Progress

- Working with Education and Workforce subcommittee on potential student engagement with Ohio Cyber Reserve
- Working with Siemen's on potential other MxD project proposals.





Zhiqiang (ZQ) Lin - CSE

Accomplishments

- ACM Distinguished Member
- Awarded NSF SaTC Frontier grant
- Awarded NSF 5G convergence accelerator (Phase I)
- Keynote at 2022 Attacks and Defenses for Internet-of-Things (ADIoT)
- Published five papers at ACM CCS'22
- CCS'22 Best paper award honorable mention
- Invited talks at Dartmouth, Purdue University, Seoul National University, and Michigan Tech University.

Work in Progress

- Preparing NSF CPS Frontier on agriculture security
- Preparing NSF 5G convergence accelerator (Phase II)





Carter Yagemann - CSE

Accomplishments

- Awarded NSA NCAE-C-003-2022 grant
- Awarded Lockheed Martin SSITH subcontract
- Awarded Georgia Tech MonT subcontract
- Published *PUMM: Preventing Use-After-Free Using Execution Unit Partitioning*
- Published *VulChecker: Graph-based Vulnerability Localization in Source Code*

Work in Progress

- Preparing DARPA Young Faculty Award (YFA) proposal; executive summary submitted
- Preparing NSF CAREERS proposal





Duane Wegener – Chair, Dept. of Psychology

Accomplishments

- Published 3 articles related to continued influence of misinformation after being labeled as false
- Established regular Information Sharing research meeting of graduate students with faculty from Psychology (Wegener), CSE (Srinivas Parthasarathy), ECE (Hesham El Gamal – in Sydney, Australia)
- Participated in speaker series on misinformation organized by Srinivas Parthasarathy

Work in Progress

- Ongoing work on information sharing (information theory comparisons) – 2 projects nearing writing stage
- Collaboration with Ted Allen and C4U on cybersecurity training engagement (NSF grant prep)
- Ongoing misinformation research/writing

