County Council of Howard County, Maryland

2018 Legislative Session   Legislative day # ___12___

RESOLUTION NO. 120 - 2018

Introduced by: Chairperson at the request of the County Executive

A RESOLUTION confirming the appointment of Anuja Sonalker to the Board of Directors of the Economic Development Authority.

Introduced and read first time on _September 4_ 2018.

By order _Jessica Feldmark_
Jessica Feldmark, Administrator to the County Council

Read for a second time and a public hearing held on _September 17_ 2018.

By order _Jessica Feldmark_
Jessica Feldmark, Administrator to the County Council

This Resolution was read the third time and was Adopted ✓, Adopted with amendments___, Failed___, Withdrawn ___ by the County Council on _October 1_, 2018.

Certified by _Jessica Feldmark_
Jessica Feldmark, Administrator to the County Council

NOTE: [[text in brackets]] indicates deletions from existing language; TEXT IN SMALL CAPITALS indicates additions to existing language. Strike-out indicates material deleted by amendment; Underlining indicates material added by amendment.

1   **WHEREAS,** Section 404 of the Howard County Charter and Section 6.300 of the Howard

2   County Code provide for the County Executive to appoint and for the County Council to confirm

3   nominees to Howard County Boards and Commissions created by law; and

4   **WHEREAS,** Section 26.102 of the Howard County Code provides for a Board of Directors

5   of the Economic Development Authority in Howard County; and

6   **WHEREAS,** the County Executive has proposed the appointment of Anuja Sonalker as a

7   member of the Board of Directors of the Economic Development Authority; and

8   **WHEREAS,** the County Council ratifies the County Executive's special trust and

9   confidence in the abilities of the nominee.

10   **NOW, THEREFORE, BE IT RESOLVED** by the County Council of Howard County,

11   Maryland this _____1st_____ day of __October__, 2018 that the following person is appointed as a

12   member of the Board of Directors of the Economic Development Authority to serve from the

13   passage of this Resolution to June 30, 2022 or until a successor is appointed and confirmed:

14   Anuja Sonalker

15   Ellicott City, Maryland

ANUJA SONALKER, PH.D

Dr. Anuja Sonalker is the founder and CEO of STEER Tech, which develops secure self-driving car technologies. STEER is focused on building Level 4 automated vehicle systems that will massively enable situationally aware, cyber robust automated driving applications.

Dr. Sonalker brings together experience from both the automotive industry as well as the cyber security sector. Prior to STEER, Sonalker was V.P of Engineering and Operations for TowerSec, an automotive cyber security company that was acquired by Harman International in 2016. Prior to TowerSec, she headed the Automotive Security Group in the Cyber Innovation Unit at Battelle, where she lead advanced research in vehicular environments and transition to market strategies.

During her career Dr. Sonalker has established collaborative research efforts and strategic partnerships, provided project management and helped set the strategic direction for the commercialization of technology. Dr. Sonalker is currently the Vice Chair of the SAE Vehicle Cybersecurity Systems Engineering Committee and Co-Chair of the ISO-SAE joint International standard on Automotive Cybersecurity Framework.

Dr. Sonalker is committed to developing our next generation workforce and mentors young women and high school children to pursue careers in engineering.

She holds a Ph.D in Electrical Engineering from the University of Maryland College Park, a Master of Science in Computer Engineering from North Carolina State University and a Bachelor of Engineering from the University of Mumbai.

Summary

Experienced executive in leadership roles from disruptive startups to established corporate style organizations. Specialized in leading innovative technology to market successfully in large and small organizations. Proven technical skills in cyber security and distributed embedded systems. Prolific researcher, award wining platform speaker, expert facilitator, considered a visionary and foremost expert in Automotive Intrusion Detection Systems and automotive cyber security. Sought after in media and print, and invited to several prestigious scientific, and commercial conferences. Vast experience in cyber security, problem solving, process improvement, gap analysis, cyber security improvement in new and existing architectures, systems, and organizations, disruptive go-to-market strategies. Personal center of influence encompassing network of accomplished leaders, innovators, government organizations, President's technical council, and senior press members.

EDUCATION

Ph.D, University of Maryland College Park
Distributed Embedded Systems Security
(Providing Collaborative Services in highly adversarial environments)
M.S, North Carolina State University
Computer Engineering

Anuja Sonalker

B.S University of Mumbai
Control Systems Engineering

CAREER
Founder and CEO, STEER

Spearheading a new autonomous vehicular technology enabler for the mass market that will enable cost-effective, robust, secure and trustworthy automated driving applications for the mass consumer car market.

VP Engineering & Operations, TowerSec Automotive Cyber Security

Setup a fully operational business unit in North America within 90 days of joining. Established the global engineering and services division, and business development unit for all new verticals. Spearheaded measurable product improvement within 90 days, and launched successful field trials with top OEMs. Accelerated the launch of TowerSec's flagship product ECUShield into the automotive market. Successfully executed security advisory services for customers providing tailored guidelines, improving their internal cyber security processes, and improving velocity rates to their OEM customers. Executed follow-on contracts within 30 days to design customer's next generation modules. Successfully executed technology commercialization for North America, and eventual transfer of TowerSec technology to Harman via acquisition.

Responsible for government affairs and routine briefings to various Capitol Hill public offices on cyber security issues in automotive, state-of the-art overview, and subject matter inputs to the lawmaking process. Successfully increased awareness on the Hill about cyber security problems and auto industry challenges to adoption since 2015.

Program Manager, Cyber Innovations Unit, Battelle

Responsible for program management for automotive innovation projects involving research and development, cyber security services, STEM engagements, patent portfolio, marketing and business development.

Co-developed the worlds first sigma six automotive intrusion detection system (patented). Apart from technical responsibilities, other responsibilities include maintaining industry outreach, scientific engagements, transition-to-practice (advanced field trials).. Executed successful field trials on decoupled projects with two of the big three US Automakers in 2014.

Served as advisory member of the Battelle Senior Technical Council reporting to the President.

Recognized as a high potential candidate and selected for Battelle executive-in-training program. Successfully commercialized and transfer three Battelle Cyber innovations to the Automotive Industry including the SAE Battelle Cyber Auto Challenge.

Branch Chief/PI, Sparta Inc
acquired by Cobham Analytics (Aerospace) later acquired by Parsons, Inc

Responsible for development of secure inter-domain routing (Internet Infrastructure security) roadmap. Worked on development, standardization of the technology at the IETF forum. Executed projects for government agencies including Army Research Lab, Air Force, Department of Homeland Security, DARPA and other three letter agencies.

Research Staff Member, IBM T.J. Watson Research

Responsible for wireless sensor network security. Designed and developed wireless embedded security technologies for mobile embedded systems in highly adversarial environments.

Anuja Sonalker

PROFESSIONAL RECOGNITION, CERTIFICATION, AND AFFILIATIONS

Co-Chair ISO 21434 Automotive Cybersecurity Framework: Product Development
Vice Chair, SAE Vehicle Cyber security Systems Engineering (SAE J3061)
Organizing Committee, IEEE Security & Privacy Symposium 2014, 2015, 2016
Program Committee, ESCAR Embedded Security in Cars Conference (ESCAR), 2018, 2017, 2016, 2015
National Science Foundation recognized SME in Cyber Physical Systems
Member, IEEE, SAE
Working Committee, SAE Vehicle Electrical System Security, IEEE Center for Secure Design
Member, Society of Women Engineers
Mentor, Scholarships for women studying information security (SWSIS)/ Hewlett Packard Foundation
Member, Maryland Scholars Speakers Bureau
Member, Maryland STEM educators

Received the Leonidas Young Achiever Award at Sparta (prior employer) for outstanding execution and service

Placed in the top 2% in the Mathematics Olympiad in 1995 (high school).

Select short list of speaking experiences:
a) Media Highlights:

1. MSN and NBC Baltimore: Your Car Needs to Park You Don't
2. Autoline Daily 2016: http://www.autoline.tv/show/2010
3. Detroit Auto Club Press Meet: http://www.theautochannel.com/news/2016/02/03/191410-apa-cyber-security-breifing-dac-detroit-mi.html
4. Detroit Free Press: http://www.freep.com/story/money/cars/2016/02/03/experts-future-auto-hackers-want-your-money-data/79758098/
5. Auto News M Detroit:http://www.autonews.com/article/20160203/OEM06/160209917/cybersecurity-experts-urge-automakers-to-take-steps-to-stop-hackers
6. Video: http://www.clickondetroit.com/video/connected-cars-whats-the-cyber-security-threat
7. IEEE Article http://theinstitute.ieee.org/ieee-roundup/opinions/ieee-roundup/ask-the-experts-cybersecurity
8. Reuters Article: http://www.reuters.com/article/idUSnMKWnHzjda+1d0+MKW20141119
9. Yahoo Finance Article: http://finance.yahoo.com/news/system-detects-alerts-automobile-cyber-185043336.html
10. http://www.cybersecurecar.com/programme/2015.pdf
11. Speaker ESCAR USA 2015: Next Generation Connected Vehicles and their true impact on the ecosystem – A cyber security perspective.
12. CNBC Article: http://www.cnbc.com/2015/02/19/14-year-old-hacked-a-car-with-15-worth-of-parts.html
13. Wards Auto: http://wardsauto.com/technology/cybersecurity-threat-arrives-auto-industry-s-doorstep

Anuja Sonalker

14. IEEE Spark 2016: http://spark.ieee.org/2016-issue-2/meet-anuja-sonalker/

b) Invited Speaker Events:

1. Invited Panelist, CES 2018, Connect2Car: Cybersecurity for the Connected Automated Vehicles
2. Invited Speaker, SAE Connect2Car Executive Leadership Forum, June 2017, San Jose, California
3. Invited Speaker, IEEE ISQED Conference, March 2017, Santa Clara, California
4. Invited speaker, Automotive Training Managers Council, 2017, Denver, Colorado
5. Invited member, White House Technology Council Tech Summit, November 2016, Washington D.C.
6. Invited speaker, CAR Management Briefing Seminar, 2016, Traverse City, Michigan
7. Invited Speaker National Academies of Engineering Symposium 2016, Ann Arbor, Michigan
8. Invited Speaker CES 2016, Connect2Car, Las Vegas, NV
9. Invited Speaker Secure Cyber Car 2015, Munich, Germany
10. Invited Speaker ESCAR 2015, Ann Arbor, Michigan
11. Invited Speaker Automotive Megatrends 2015, Dusseldorf, Germany
12. Invited Speaker SAE Government Industry 2015 Meeting, Washington, D.C
13. Invited Speaker GENIVI Alliance 2016, Detroit Michigan

Publications

Textbook: Handbook of Systems Security and Safety, Ed Griffor et al., Elsevier Science Publications, 2016

Anuja Sonalker