PROFESSIONAL SUMMARY

The foundation for my career began over thirty years ago with a Doctorate in Electrical Engineering.

I am currently a Research Professor at Southern Methodist University's Hunt Institute, an Adjunct Professor Telecommunications and Network Engineering Program at SMU's Graduate School of Electrical and Computer Engineering. I am also the owner of Olivier Consulting, where I provide consulting services for advanced network / system design along with IP consulting. In addition, I am also a member of the technical staff of McAlexander Sound, where I specialize in Telecommunications Architecture / Computer Software. Recently I have been appointed Program Lead and Adjunct Executive in Residence at SMU's Hunt Institute for Engineering and Humanity for Transformational Technologies.

I have three degrees from The Ohio State University: a Bachelor of Science degree in Electrical Engineering; a Master of Science degree in in Electrical Engineering and a Doctor of Philosophy degree in Electrical Engineering. I have published papers in the areas of coding theory and multiprocessor computer systems.

Over the last 19 years I have devoted my attention to industry consulting in the areas of intellectual property and networking technologies.

EDUCATION PROFILE

Ph.D. Electrical Engineering, The Ohio State University, Columbus, Ohio, 1988 Dissertation: "*Concurrent Error Detection in Arithmetic Processors using GAN Codes*", Received separate minors in fields of Computer Science, Microelectronics and Semiconductor Fabrication, and Discrete Mathematics.

Recipient of the prestigious Kodak Fellowship, awarded nationally to 12 doctoral students in the fields of science and engineering.

MS. Electrical Engineering, The Ohio State University, Columbus, Ohio, 1985 Thesis: "*A Navigation System for a Vehicle with a Laser Rangefinder*"; Major areas of study were robotics and artificial intelligence.

BS. Electrical Engineering, The Ohio State University, Columbus, Ohio, 1983 Cum Laude.

EXPERIENCE PROFILE

2022 – present **Research Professor at SMU's Hunt Institute for Engineering and Humanity Southern Methodist University**

- Program Lead of Hunt Institute's Transformational Technology Hub responsible for strategy formulation and project implementation.

2019 – 2022 **Program Lead and Adjunct Executive in Residence SMU's Hunt Institute for Engineering and Humanity Southern Methodist University**

- Program Lead of Hunt Institute's Transformational Technology Hub responsible for strategy formulation and project implementation.

2017 - present **Adjunct Professor Telecommunications and Network Engineering Program Southern Methodist University's Lyle School of Electrical Engineering**

- Teaching Advanced Switching and Routing with MPLS at SMU's nationally rated Telecommunications and Network Engineering program. Research interests include SDNs, Video Transport, SD-WANs, Blockchain, IoT, and In-Networking Processing.

2003 - present **Olivier Consulting – Dallas Texas**
IP Consultant M^{c}Alexander Sound

- Technology Research and Intellectual Property Management, including, IP Protection, IP Validity, IP Portfolio Valuation, IP Strategy and IP Technical Consultation. Clients include Arista Networks, HTC Corporation, T-Mobile, Samsung, Vizio, Google Corporation, Level 3 Communications, AT&T, Amazon, Ericsson, and S.T Microelectronics.

Recognized Expert before United States Federal District Courts in the Areas of

- Congestion Control in Packet Switching
  QPSX v Nortel 2:05-CV-268, 2007

- Cellular High Speed Packet Access Networks
  Wi-LAN Inc., v. Alcatel-Lucent et. al CV-6:10, 2013

- Signaling Protocols in Cellular Networks
  Core Wireless Licensing S.A.R.L v. Apple 6:12-CV-100, 2015

Recognized Expert before the International Trade Commission in the Areas of

- Security and Firewalls in Routers and Switches;
  Investigation 337-TA-628, 2007

- Cellphone Hardware and Software for Imaging;
  Investigation 337–TA-726, 2010

- Operating Systems for Mobile Devices;
  Investigation 337–TA-744, 2011

- Mobile Devices Hardware and Software Architectures;
  Investigation 337–TA-850, 2012

- Ethernet Switch Packet Processor Hardware and Software;
  Investigation 337–TA-945, 2015

Lead Technology Research and Intellectual Property investigations in the following areas

- Technology related to mobile camera system's software systems architecture. *HTC Corporation*

- Technology related to gateway protocols between Cellular /PSTN Networks and the Internet. Investigated the design of a Packet Gateway and associated soft switch. *Level 3 Communications*

- Technology related to content delivery server systems based on demographic information received from client systems. *AT&T*

- Technology investigation related to Metro Ethernet, MPLS, 802.17, and 802.3 access products. *Transpacific IP*

- Technology investigation related to the research, specification, design, and architecture of the Telstrat's Next Generation Switch, which provided video, including analog, digital, HDTV, along with IP based voice, and also provided internet service. *Telstrat*

- Technology investigation into the specification, design, and architecture of the Crane Wireless Sensor Network. Investigated scalability, address assignment, access, and security for a large IoT Wireless Sensor Network. *Crane Aerospace*

2002 - 2003 **Navini Networks - Richardson, Texas Senior Manager**

- Performed research and development in Navini's Wireless CDMA broadband System. Responsible for definition and implementation of layer 2 and layer 3 network protocols for Navini's Broadband Wireless Products. Developed servers for network security, network services, service provisioning and subscriber management for a CDMA network. Responsible for the design and development of a sign-on web site which managed and authorized users for different services in a broadband CDMA network. This system consisted of multiple Apache Web Servers providing the web pages to the users and a centralized key storage facility to manage the various keys needed to authorize the different services.

1999 – 2002 **Marconi Communications - Irving, Texas Manager of Systems Engineering**

- Responsible for design and development of new products and product evolution for Marconi's North American Access Division. I developed systems for the access video market, such as Digital Subscriber Line (DSL) networks, Hybrid fiber-coaxial (HFC) networks and DOCSIS systems. These systems were triple play systems which provide voice, video and data. While at Marconi, I was also responsible for the web servers design for the Network Management System for the North American Access product division.

1996– 1999 **Samsung Telecommunications America - Richardson, Texas Principal Engineer**

- Responsible for Service Control subsystem of Samsung's next generation wireless broadband UMTS switching system. Designed and developed a Java based platform for defining services for Samsung's next generation high-speed wireless switch. Areas of responsibility include traditional telephony services, wireless services, broadband

services, and Internet services, such as an email portal. While at Samsung, I was also their corporate representative to the International Telecommunication Union, ("ITU"), which is the agency of the United Nations responsible for information and communication technologies. I was also Samsung's corporate representative to the 3GPP standards body. It was there that I participated in the development of standards for advanced wireless networks, including multimedia transport.

1995 – 1996 **DSC Switch Products Division – Plano, Texas**

Senior Manager: Intelligent Network Evolution and Business Planning

- Responsible for architecture and development of DSC's Intelligent Network product line. These products demonstrated at SuperComm 1996; a U.S. telecommunications trade show showed the integration of streaming media servers together with the interactivity of the Internet. I also actively interacted with key customers on their system designs and participated in relevant standards work.

Senior Manager: ATM Systems Engineering Group

- Lead the systems engineering group in defining a new high-speed ATM switches for enterprise and telecommunication networks. These efforts include, multiprocessor architectures, communications subsystems, and software architectures. In addition, I was responsible for responding to RFIs and RFPs for a number of clients server based multimedia systems and served as DSC corporate representative to the ATM Forum.

1990 – 1995 **AT&T Bell Laboratories - Columbus, Ohio**
Member of Technical Staff

- Designed and implemented a variety of multiprocessor systems for use in the computer/multimedia systems. These systems included Asynchronous Transfer Mode 'ATM' based Internet and video distribution system. I also participated in the design and development of client server based systems for database access. At this time, I also began my work with standard settings bodies. While at AT&T Bell Laboratories in 1990s, I was charged with monitoring standard setting bodies such as the ATM Forum and DAVIC, the Digital Audio-Visual Council.

1989 – 1990 **General Motors Research Laboratories Warren Michigan**

Senior Research Engineer: Computer Science Department

- Conducted research into basic computer science problems associated with the future development of vehicular systems. These areas include the design of fault tolerant control systems, new cost affective microprocessor architectures and software for reliability and performance modeling. Lead the development of an automotive testbed for the evaluation of prototype systems.

1988 – 1989 **Harris Communications – Melbourne, Florida**
Principal Engineer

- Conducted research and development into innovative computer systems for use in space systems. Studied coherency protocols for microprocessor memory systems. Developed fault tolerant multi-processor computer systems for use in Strategic Defense Initiative.

PUBLICATIONS

Olivier, J., Ozguner, F. "*A navigation algorithm for an intelligent vehicle with a laser rangefinder*", Proceedings of the 1986 IEEE International Conference on Robotics and Automation, Vol. 3, April 1986.

Olivier, J. L. and Ozguner, F. "*Design of Concurrent Error Detecting Systolic Arrays Using GAN Codes*" IEEE Transactions on Computer Aided Design, vol. 9, no. 10 October 1989.

Olivier, J.L. "*Low Cost Residue Prediction for Improved Addition Efficiency*", G. M. Research Publication, December 1989.

Olivier, J.L. and Tkacik, T.E., "*RELY, a Markov Modeling Package for System Reliability Prediction*" G.M. Research Publication, January 1990.

ISSUED PATENTS AND PATENT APPLICATIONS

- US 8334775 RFID-based asset security and tracking system, apparatus and method Network based asset management system.

- US 20090174772 Security and surveillance system

Network based surveillance and security system.

- US 20130201337 Rfid-based asset security and tracking system, apparatus and method

Network based asset management system.

ADDITIONAL ACTIVITIES

Member of the Advisory Board for the Innovation Hub for the Dallas County Community College District.

Fellow at SMU's Hunt Institute for Engineering and Humanity.

Chairman of IEEE Dallas Blockchain Group