CURRICULUM VITAE

November 1, 2021

Prof. Martin E. Gordon, PE, DFE

Past-President and Fellow, National Academy of Forensic Engineers











Prof. Martin E. Gordon, PE, DFE 1. Name

2. **Affiliation** Rochester Institute of Technology

College of Engineering Technology

Department of Mechanical and Manufacturing Engineering Technology

3. Age

4. Academic Rank Professor and Director for External Academic Relations

BS - Mechanical Engineering 5. University at Buffalo Degrees

> MS – Mechanical/Systems Engineering University at Buffalo MBA - Organizational Behavior Focus University at Buffalo

Years of Service as Faculty at RIT / Total Years of Professional Experience 6.

26 years at RIT / 40 total years of professional experience

7. Other Teaching Experience and Service

Niagara County Community College – Mechanical Technology Advisory Board – 2006 - 2016 Adjunct Faculty - University at Buffalo - Mechanical and Aerospace Engineering - 2004-2006 Teaching Assistant - University at Buffalo, 1982-1984 Laboratory Instructor - University at Buffalo, 1982-1984

8. Full-time Industrial Experience

Moog Incorporated, East Aurora, NY; Systems Application Engineer, Project Engineer, Senior Project Engineer, Product Manager; 1984 - 1995.

9. Selected Courses Taught

Traffic Accident Reconstruction Land Vehicle Dynamics Human Factors & Ergonomics Failure Mechanics Applied Mechanics Principles of Mechanical Design **Dynamics** Computer Applications for Engineering Materials Testing

Statics Fluid Mechanics Parametric Modeling and CAD

Heat Transfer Thermodynamics Assembly Automation Applied Structural FEA Thermofluids Lab Metrology Vibration and Noise Strength of Materials Machine Design Mechanical Analysis and Design Mechanical Dynamics Pneumatics and Hydraulics

10. **Professional Registrations**

Registered Professional Engineer, New York - 080518; Pennsylvania - PE092016; Texas - 135567 Board Certified Diplomate in Forensic Engineering by NAFE, a CESB Member, Fellow No. 699 Certified Bosch CDR Trainer/Mentor and Data Analyst

Scientific and Professional Societies 11.

National Academy of Forensic Engineers (NAFE) - Board of Directors, Past-President and Fellow American Society of Engineering Educators (ASEE) – Vice-President, Institutional Councils Journal of the National Academy of Forensic Engineers – Past Editor-in-Chief SAE (formerly known as the Society of Automotive Engineers) - Past-Chairman WNY Section American Society for Testing and Materials (ASTM) - E58 -Forensic Engineering Standards Committee Association for the Advancement of Automotive Medicine (AAAM) - Member, Policy Committee New York Statewide Traffic Accident Reconstruction Society (NYSTARS) - Member National Council of Examiners for Engineering and Surveying (NCEES), POLC, 2018-2019 Education Committee National Society of Professional Engineers (NSPE) - National Committee on Policy and Advocacy, Secretary, MPES Practicing Institute of Engineering (PIE) – Board of Trustees 2020-2023

12. <u>Selected Meetings, Seminars and Special Training Attended</u>

NAFE July 2021 Forensic Engineering Technical Seminars

NAFE July 2021 Forensic Engineering Education Seminars

NAFE January 2021 Forensic Engineering Technical Virtual Seminar

NAFE January 2021 Forensic Engineering Education Virtual Seminar

ASME Connect the Dots Convening 2020 - Keynote Speaker

NAFE July 2020 Education Virtual Seminar – General Forensic Engineering

NAFE January 2020 Forensic Engineering Seminar - Moderator, Mechanical Tracks

NAFE January 2020 Special Topics Seminar - General, Marine and Aquatics Forensic Engineering Tracks

Engineering Technology Leadership Institute, October 2019

NCEES Annual Congress, August 2019

NAFE July 2019 Forensic Engineering Seminar - Accident Reconstruction Track and Mechanical Track

NAFE July 2019 Special Topics Seminar – General Forensic Engineering

ASEE Conference, June 2019

ASEE CIEC, February 2019

NAFE January 2019 General Topics in Forensic Engineering Seminar – General Track

NAFE January 2019 Special Topics Seminar, Mock Depositions

NYSTARS Joint Conference October 2018 - General Sessions on Accident Reconstruction

Engineering Technology Leadership Institute, October 2018

NCEES Annual Congress, August 2018

NAFE July 2018 General Topics in Forensic Engineering Seminar – Accident Reconstruction Track

NAFE July 2018 Special Topics Seminar - Forensic Photography, Crash Tests, Forensic Surveying, Mock Trial

NSPE Conference, July 2018

ASEE Conference, June 2018

NYSP CRU Training June 2018 – assisted with equipment and setup

NAE-AAES Convocation of the Professional Engineering Societies (by invitation) April 2018 - Cybersecurity

NYSTARS March 2018 Seminar - Forensic Photography and Reconstruction Case Studies

ASEE CIEC, February 2018

NAFE January 2018 General Topics in Forensic Engineering Seminar - Accident Reconstruction Track

NAFE January 2018 Special Topics Seminar – Fire Investigation Track

Engineering Technology Leadership Institute, October 2017

NAFE July 2017 General Topics in Forensic Engineering Seminar – Accident Reconstruction Track

NAFE July 2017 Special Topics Seminar

ASEE Conference, June 2017

AAES National Engineering Public Policy Symposium (by invitation) May 2017

NAE-AAES Convocation of the Professional Engineering Societies (by invitation) May 2017 – Autonomous Vehicles

NYSP CRU Training April 2017 – assisted with setup and training

ASEE CIEC, February 2017

NAFE January 2017 General Topics in Forensic Engineering Seminar - Accident Reconstruction Track

NAFE January 2017 Special Topics Seminar

Engineering Technology Leadership Institute, October 2016

NAFE July 2016 General Topics in Forensic Engineering Seminar

ASEE Annual Conference and Seminars, June 2016

NYSP CRU Training April 2016 – developed e-brake system and assisted with setup and training

NAFE January 2016 General Topics in Forensic Engineering Seminar

NAFE January 2016 Special Topics Seminar – Accident Reconstruction Breakout

Engineering Technology Leadership Institute, September 2015

NAFE July 2015 General Topics in Forensic Engineering Seminar

NAFE July 2015 Special Topics Seminar - Accident Reconstruction Breakout

NYSP CRU Training April 2015 – by invitation

NAFE January 2015 General Topics in Forensic Engineering Seminar

NAFE January 2015 Ethics, Rules & Laws, Daubert Proofing and Unreasonably Dangerous Products Seminar

DSD PC-Crash Advanced Simulation Training July 2014

NAFE July 2014 General Topics in Forensic Engineering Seminar

NYSP CRU Training April 2014 – by invitation

NAFE July 2013 General Topics in Forensic Engineering Seminar

NAFE July 2013 Advanced Accident Reconstruction Seminar

NYSP CRU Training April 2013 – by invitation

ARC-SCI January 2013 CDR Summit

ARC-CSI January 2013 CDR Trainer/Mentor Course

ARC-CSI May 2012 Crash Conference

NYSP CRU Training April 2012 – by invitation

NAFE January 2012 General Topics in Forensic Engineering Seminar

NAFE January 2012 Reports, Affidavits, Depositions and Ethics Seminar

CSI June 2011 Certified Bosch CDR Data Analyst Training

ARC-SCI May 2011 Crash Conference

NYSP CRU Training April 2011 – by invitation

NAFE January 2011 General Topics in Forensic Engineering Seminar

NAFE January 2010 General Topics in Forensic Engineering Seminar

NAFE January 2009 General Topics in Forensic Engineering Seminar

NAFE January 2009 Gathering, Storing, Analyzing, Documenting and Reporting Seminar

NAFE January 2008 General Topics in Forensic Engineering Seminar

NAFE January 2008 Medical Information and Standards for Engineering Evidence Seminar

13. Engineering Analysis, General Consulting and Other Related Experience

Cummins Engine, Jamestown, NY

Moog Incorporated, East Aurora, NY

Prentice-Hall, Upper Saddle River, NJ

SAIC, Washington, DC

JC Carter Incorporated, Costa Mesa, CA

Thermo Fisher Scientific, Rochester, NY Tactair, Syracuse, NY

Student Hosteling Program, Rochester, VT – Assistant Bicycle Tour Leader and Bike Mechanic

14. <u>Forensic Engineering and Expert Witness Clients</u>

Client references are available upon request. I have worked with over 80 firms in more than 250 forensic engineering cases. My caseload is balanced between plaintiff (59% of cases) and defense (41% of cases). I have testified and been cross-examined in 13 separate courtroom trials. I have experience in both state and federal court.

15. Selected Publications and Conference Presentations

Gordon, M.E., "Professional Societies Attitudes Towards PE Licensure of Engineering Technology Graduates: Supporting the Creation of a More Diverse, Equitable and Inclusive Engineering Workforce", Invited Keynote Speaker, American Society of Mechanical Engineers, 2020 Connect the Dots Convening, December 2020.

Gordon, M.E., Knapp, S., Leiloglou, A.G., Ziernicki, R.M., "The Application of Matchmoving for Forensic Video Analysis of a Fatal Sprint Car Accident. Part I", National Academy of Forensic Engineers Conference, Denver, July 2019.

Ziernicki, R.M., Knapp, S., Leiloglou, A.G., Gordon, M.E., "The Application of Matchmoving for Forensic Video Analysis of a Fatal Sprint Car Accident. Part II", National Academy of Forensic Engineers Conference, Denver, July 2019.

Buholtz, E., Foley, J., Gordon, M.E., Kurland, H., Mackey, G., Prato, T., Regan, J., Stander, T., "Laying the Foundation for Evidence", Monroe County Bar Association Center for Education, Rochester, NY, January 25, 2019.

Bates, D., Gordon, M.E., Houle, P., Hyzer, J., Pelz, J., Robins, P., "Developing a Time-Based Expectancy for Driver Perception-Reaction Time at Night", NYSTARS Joint Conference, Lake George, NY, October 19, 2018.

O'Neil, J.A., Gordon, M.E., Gordon, A.T., Rice, B.S., DeAngelis, G., "Is Unaided Active Learning an Effective Teaching Method for Those with Learning Disabilities?", ASEE National Conference, Salt Lake City, UT, June 2018.

Gordon, M.E., "How do Forensic Engineers Investigate Bridge Collapses, Like the One in Miami?, The Conversation, March 25, 2018.

Wang, M., Walders, K., Gordon M. E., Pelz, J., Farnand, S., "Auto-simulator Preparation for Research into Assessing the Correlation Between Human Driving Behaviors and Fixation Patterns", Presented at Electronic Imaging Conference, January 2018, Burlingame, CA.

Gordon, M.E., "Forensic Engineering: Some Examples", Invited Speaker, Province of Ontario, Ministry of Labour, Mississauga, ON, October 2017.

Herbert, A. M., Baschnagel, J., Gordon, M. E., & McDonald, Z. (2017). Augmented reality HUDS: warning signs and driver situation awareness. Journal of Vision, 17(7), 40-40.

Gordon, M.E., "Forensic Engineering: Engineering Applied to the Law", Invited Keynote Speaker, Rochester Engineering Society 2017 Symposium, May 2017.

Gordon, M.E., "Finding and Using a Forensic Engineer in Personal Injury Cases", invited lecture and panel discussion at the University of Buffalo Law School, October, 2016.

Gordon, M.E., Pearson, J. J., "Preliminary Analysis of Roadway Accident Rates for Deaf and Hard-of-Hearing Drivers – Forensic Engineering Application", Journal of the National Academy of Forensic Engineers, Vol. 33, No. 1, June 2016.

Gordon, M.E., Pearson, J. J., "Highway Accident Rates for Deaf and Hard of Hearing Drivers – Forensic Engineering Application", NAFE Seminar Tampa, FL, January 2016.

Gordon, M.E., "The Role of the Engineering Expert Witness", invited lecture and panel discussion at the University of Buffalo Law School, October, 2015.

Gordon, M.E., "Forensic Engineering Investigation of a Three Vehicle Accident", NAFE Seminar Washington, DC, July 2014.

Gordon, M.E., "Forensic Engineering Investigation of a Three Vehicle Accident", Journal of the National Academy of Forensic Engineers, Vol. XXXI, No. 2, December 2014.

Gordon, M.E., "What is a Forensic Engineer?", invited lecture and panel discussion at the University of Buffalo Law School, October, 2014.

Gordon, M.E., "Forensic Engineering Investigation: Crash of a Tractor Trailer into a Delivery Van", NAFE Seminar Minneapolis, MN, July 2013.

Gordon, M.E., "Forensic Engineering Investigation: Crash of a Tractor Trailer into a Delivery Van", Journal of the National Academy of Forensic Engineers, Vol. XXVIII, No. 1, June 2011.

Hallbach, D., Gordon, M.E., "Baja SAE Competitions: Meeting and Interacting with International Students – Experiences of Student and University Participants", ASEE National Conference, Austin, TX, 2009.

Trauger, B., Gordon, M.E., "Co-op Experiences of Deaf Engineering Technology Students", paper presented at the Spring 2008 CAST Scholarship Colloquium, 2008.

Gordon, M.E., Mallory, J.M., "Deaf and Hard-of-Hearing Engineering Technology Students: A Distinct Diversity Group" presented at 2007 CIEC Conference in Palm Springs, CA, 2007.

Lundgren, C., Leonard, W., Gordon, M.E., "From 'Imagineering' to Engineering: Engaging Students in Their Education", Paper presented at the National Collegiate Inventors and Innovators Alliance Meeting March 14 - 16, 2002.

Gordon, M.E., "Liquefied Natural Gas Connectors", Paper presented at Minnegasco's <u>Making a Clean Break with LNG 1995</u>, 1995.

Gordon, M.E., "Liquefied Natural Gas Couplings", SAE Liquefied Natural Gas TOPTEC, 1993.

16. <u>Honors, Awards, Patents</u>

SAE Top Contributor of the Year, Class of 2019
2017 Engineer of the Year – Rochester Engineering Society (awarded in 2018)
US Patent No. 5429155, "Cryogenic Fluid Coupling"
2013 RIT Coaches Appreciation Award
1997 RIT Provost's Excellence in Teaching Award

Nominee – RIT Eisenhart Outstanding Teacher Award (multiple nominations) Member Beta Gamma Sigma - National Business Honor Society 1994-1995 SAE Outstanding Younger Member Award



17. Other Duties Performed for Regular Base Salary

RIT Duties

Faculty Advisor, Baja SAE Club, 1995 - present

NCAA Faculty Athletic Representative, 2004 – present

Faculty Advisor, Men's Ice Hockey Club, 2007 - present

Institute Athletics Compliance Committee, 2012-present

Chief Organizer, 2019 Baja SAE Rochester World Challenge, 2018 - 2019

IMLC Vision Committee, 2018-2019

Faculty Co-Advisor, Running and Multisport Club, 2011 – 2017

Chief Organizer, 2016 Baja SAE Rochester World Challenge, 2015-2016

RIT Global Education Taskforce, 2014-2015

DiscoveRIT Niagara Falls Bicycle Adventure Leader, 2012 - 2013

Chief Organizer, 2013 Baja SAE Rochester World Challenge, 2012-2013

Chief Organizer, 2010 Baja SAE Rochester World Challenge, 2009 -2010

Chief Organizer, 2007 Baja SAE Rochester World Challenge, 2006 -2007

Faculty Advisor, Men's Rugby Club, 1996 - 2007

Assistant Coach, RIT Women's Hockey Team, 2003 - 2006

Chief Organizer, 2005 SAE Mini-Baja East, 2003 – 2005

Learning Development Center Advisory Board, 2002 - 2004

Provost's Excellence in Teaching Award Committee, 2002 - 2003

RIT Campus Environment Committee, 2000 - 2001

Provost's Excellence in Teaching Award Committee, 1998 - 1999

College Duties

CAST Promotion Committee, 2016 - 2018

CAST Tenure Committee, 2008 - 2011

CAST Curriculum Committee, 2002 – 2005

CAST Mid-Tenure Committee, 2002 – 2003

Chairman, CAST Mid-Tenure Committee, 2001-2002

CAST/COB Eisenhart Selection Committee, 1999 – 2000

Department Duties

MMET/PS QTS Mechanics Group Committee, 2009 – 2013

MMET/PS QTS Technical Electives Group Committee, 2009 – 2013

MMET/PS QTS Mechanical Design Group Committee, 2009 – 2013

MMET/PS Chair Search Committee, 2007 - 2008

MMET/PS Website Committee, 2003 - 2005

MMET/PS Software Committee, 2002 – 2004

MET Faculty Search Committee, 2005 -2006

MET Curriculum Committee, 2003 – 2005

Planning Committee, Mechanical Session Coordinator, Spring 2001 NYSETA Conference, 2000-2001

MET Lower Division Design Experience Ad-hoc, 2000 - 2001

MMET/PS New Faculty Search Committee, 1999 - 2000

18. Other Information

Professionally Related

Experienced Cyclist with over 45 years of experience leading, riding and repairing Moderately Fluent in American Sign Language Moderately Fluent in Portuguese

Community Related

Rotary International - Naples, NY Club

Rotary Cycling to Serve

Race Director, Rochester River Chase 2014

Ironman Lake Placid Finisher 2012

Lifeguard - Ironman Lake Placid 2011 & 2013 through 2016

Member Rochester Bicycle Club

Past Member Niagara Frontier Bicycle Club

Certified Red Cross Lifeguard

USA Triathlon – member (Northeast Region)

Genesee Valley Harriers Running Club – member

Rochester Area Triathletes (RATS) – member

Buffalo Triathlon Club – member, past board member

Zoning Board of Appeals – Town of South Bristol, NY

Adirondack Mountain Club - 46r #5923

Assistant Coach - McQuaid Jesuit JV Ice Hockey Team 2012-2014

Project Lead the Way -- Program Evaluator

Judge, Invention Convention, Clarence Central Schools.

Music Producer for the 2005 through 2009 Gliding Stars Shows

Music Producer for the 2001 through 2004 Skating Association for the Blind and Handicapped Shows

United States Figure Skating Association, Eastern United States Sectional Music Coordinator

Past President and Board Member, Buffalo Skating Club