COMPANY OVERVIEW & CLIENT SERVICES
OUR MISSION:

Our mission is to provide clients with insight & analysis by applying EMC theory, design, & test methods using a System Engineering Methodology for cost-effective functionality, design, manufacture, & compliance of electromechanical and electronic based components, systems, & vehicles.

OUR HISTORY:

- 1986 – founded by James Muccioli. The initial focus was EMC Training with a strong emphasizes toward the Automotive Industry.
- 1986-1989 – undergraduate EMC coarse at Lawrence Technological University taught by Mr. Muccioli
- 1997 – consulting services for products, testing, & application development.
- 2000 – Mr. Muccioli developed 1st undergraduate EMC coarse at the University of Michigan-Dearborn.
- 2007 – “EMC System Engineering Management” was developed for use in the automotive industry.
- 2008 – vehicle and powertrain electrification (EV/HEV Technology at the OEM & Supplier level).
- 2009 – developed EMC counter-measures & obtained vehicle certification for 1st electric vehicle (EV) eligible to be sold in EU.
- 2009-2013 – EMC Training Seminars & Professional Education at the University of Michigan, SAE, and in China for EV/HEV EMC design.
- 2010 – wireless vehicle communications, wireless charging, & other wireless applications.
- 2014 – autonomous vehicle development.

www.Jastech-EMC.com
OUR CONSULTANTS:

James Muccioli
- Owner, Jastech EMC Consulting
- BS & MS from University of Michigan
- Chrysler
  - Powertrain Engineer
  - Supervised EMC Department & Labs
  - Supervised Corporate Radios
  - Process Manager for Small Car Platform
- CTO at X2Y Attenuators
- IEEE Fellow for EMC work on ICs in 1998.
- Active SAE EMC committee member (Chair of IC EMC Task Force).
- iNARTE certified ESD, EMC, & Master Design Engineer.
- University Instructor at:
  - Lawrence Technological University
  - University of Michigan-Dearborn
  - University of Michigan

Dale Sanders
- Independent Consultant
- BSE from University of Michigan-Dearborn.
- U.S. Marine Corps.
- IC Design Engineer at Xilinx.
- Applications Engineer at X2Y Attenuators.
- Active SAE EMC committee member.
- Senior Member of the IEEE.
- iNARTE certified Master EMC Design Engineer.
- Guest lecture on EMC topics at:
  - University of Michigan-Dearborn
  - University of Detroit-Mercy

Terry North
- Independent Consultant
- BS & MS from Wayne State University.
- U.S. Army
- Ford Motor Company
- Chrysler
  - Powertrain Engineer
  - Development of EMC Test Methods
  - International EMC Test Standards
  - Supplier Lab Certifications
- Active SAE EMC Committee Member
- Senior member of the IEEE.

OUR CORE COMPETENCY:

Jastech’s core competency is our “EMC System Engineering Management” approach to client projects & programs. Our unique experience & proven know-how of vehicle architecture & automotive EMC provide clients with value added results at any stage in the product creation process (conception-to-production).
OUR SCOPE & SERVICES:

**Scope:**

**IC-to-VEHICLE / CONCEPTION-to-MANUFACTURING**

**Services:**

- **EMC Program Management** – facilitation of EMC throughout the Product-creation-process (PCP)
- **Training & Seminars** – EMC design techniques & requirement understanding
- **Identify Requirements** – market access, government regulations, legal compliance, industry specific application, & customer(s) requirements
- **Technical Liaison** – between customers, suppliers, & a client’s internal groups
- **Technical Assessment** – recommendations, design reviews, application integration, risk assessment, & gap analysis
- **Diagnostic Testing** – development work, troubleshooting, & failure analysis
- **Validation Planning** – test plan development, standards interpretation, identification of pass/fail criteria, load requirements, & set-up conditions
- **Compliance Testing** – support, oversight, & certification assistance
- **Expert Witness** – research, technical opinions, & depositions

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Our Experience & Success:

- Worked with product development teams to create EMC milestones and gates within established design processes.
- Facilitated the discovery of both EMC functional and compliance requirements.
- Supported client programs from conception through manufacturing.
Our Experience & Success:

- Public and internal training seminars.
- Integrated product specific information into Training Seminars to illustrate EMC design concepts.
- Professional Education Seminars through University of Michigan-Ann Arbor.
- Adjunct Professor at the University of Michigan-Dearborn and Lawrence Technological University.

“Automotive Electronic Design Techniques and Analysis Required to Meet EMC Requirements” (2-day seminar)

“System Engineering Approach on How to Design, Validate, and Simulate IC Decoupling” (1-day seminar)

“Advanced EMC Printed Circuit Board Techniques” (1-day seminar)

“EMC Suppression techniques for DC Motors” (1-day seminar)

“High Speed IC Decoupling Design for Printed Circuit Boards” (1-day seminar)

“System Level Approach to EMC Shielding on Hybrid and Electric Vehicles” (1-day seminar)
Our Experience & Success:

- Actively participate on Automotive Standards Committees, Task Forces, & Technical Working Groups in the US & Internationally.
- Developed & maintained OEM (Chrysler Corp.) EMC standards & test methods.
- 2011 – SAE contracted Jastech to present standards in Taiwan workshop sponsored by ARTC.
- Established internal EMC specifications for suppliers and products sold for global markets.

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Our Experience & Success:

- Negotiated, on behalf of clients, product/system test set-up and performance criteria both suppliers and customers.

- Reviewed design specifications to ensure EMC requirements are correctly stated and interpreted for the product/system functionality & compliance.

- Facilitate technical requirements between internal groups such as designers, marketing, and manufacturing.

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**TECHNICAL ASSESSMENT**

**Our Experience & Success:**

- Provide Gap Analysis to improve design and product specification.
- Develop EMC benchmarks for product/system revision levels.
- Provide EMC Design Reviews (test set-up & data analysis, layout geometries, component & material selection).
- Recommend product/system integration guidelines to ensure EMC compliance & functionality.

[Diagram showing steps of engineering process]

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Our Experience & Success:

- Diagnostic evaluation to determine root cause analysis for catastrophic failures & non-compliance.
- Correlation between development (bench level) testing to standardized testing.
- Correlation of module set-up for vehicle integration to address real-world environments & threats.
- Developed new test methods for new product/technologies.
Our Experience & Success:

- Defined requirements for a product/system’s global market.
- Developed Test Plan Templates for use with international standards.
- Documentation of EMC design efforts to demonstrate engineering due diligence.
- Refinement of a product/system’s functional criteria to ensure safe operation within a vehicle’s (RF) environment.

Our Experience & Success:

- Intimate with all major OEM & International EMC Standards, requirements, & directives for Automotive, Heavy Truck, & Agriculture vehicles.

- Worked with clients & test house to streamline and reduce test time.

- Developed test methods & methodologies.

- Assisted clients in selecting & qualifying 3rd party test house.

- Assisted an EMC test facilities with standardized test methods and training.

- Witness & support client testing.

EXPERT WITNESS

Our Experience & Success:

- Attorney preparation
- Technical research
- Opinions & reports
- Depositions & Testimony
OUR CONTACT INFO:

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