

Mr. James Smolka is a Senior Consultant for Engineering Systems Inc. (ESi). Mr. Smolka has over 25 years of experience in Electrical Engineering, particularly in the field of Electrical Power Engineering and Instrumentation and Controls (I&C) Engineering and Electrical Safety. His areas of expertise include design and analysis of electrical power systems for power generation plants, power distribution systems, industrial electrical systems, automation systems, and robotic systems.

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## Education

MS, Electrical Engineering, Clemson University (Electrical Power) with Minor in Industrial Engineering.

BS, Electrical Engineering, Clemson University.

AS, Spartanburg Technical College.

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## Licenses & Certifications

- State of North Carolina P.E. License 034493
- State of South Carolina P.E. License 33049
- State of Arizona P.E. License 63661
- State of Alabama P.E. License 36673-E
- State of Florida P.E. License 90387
- Functional Safety Consultant TUV Rheinland 10443/15
- Certified Fire and Explosion Investigator CFEI 19327-10985
- Certified Electrical Safety Compliance Professional CESCO-18-311
- Certified Emergency Power Systems Specialist CEPSS-FM-19-043

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## Positions Held

### Engineering Systems Inc., Charlotte, North Carolina

- Senior Consultant, 2013 – Present

## Contact Information

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## ESi Charlotte

3310 Green Park Circle  
Charlotte, NC 28217

## Areas of Specialization

- Design and modification of electrical systems
- Design of interface systems for digital I&C systems and electrical power systems
- Engineering, Procurement, and Construction (EPC) projects
- General Electrical Engineering including associated Codes and Standards and NRC requirements
- Design, implementation, and repair of variable speed motor drive systems (VFD)
- Design, implementation, and repair of PLC systems, HMI systems, and robotic systems
- Electrical Safety (NFPA 70E)

#### **AREVA, Charlotte, North Carolina**

- Engineer, 2006 – 2013

#### **Neptco Inc., Lenoir, North Carolina**

- Engineer, 2004 – 2006

#### **Industrial Technology Solutions Inc., Hickory, North Carolina**

- Engineer, 2002 – 2003

#### **Alcatel Telecommunications Inc., Claremont, North Carolina**

- Engineer, 2001 – 2002

#### **SAR Automation L.P., Spartanburg, South Carolina**

- Engineer, 1999 – 2001

#### **Duke Engineering & Services Inc., Charlotte, North Carolina**

- Engineer, 1997 – 1999

#### **Robert Bosch Corporation, Anderson, South Carolina**

- Electronics Technician, 1988 – 1991

#### **Pirelli Power Cable Corporation, Abbeville, South Carolina**

- Electronics Technician, 1987 – 1988

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### **Professional Affiliations/Honors**

#### **Institute of Electrical and Electronics Engineers (IEEE)**

- Member

#### **Military Experience**

- U.S. Navy, 1981 – 1987
- USS San Diego, AFS-6, Norfolk, Virginia - Work Center Supervisor, 1986 – 1987 USS San Diego, AFS-6, Norfolk, Virginia - Electronic Technician, 1984 – 1987
- USS San Diego, AFS-6, Norfolk, Virginia - Search Air & Rescue Swimmer, 1985 – 1987

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### **Publications**

"Risk Assessment: When have you reached acceptable risk?" Mathias, A.C., Wong, W., **Smolka, J.C.**, Mohorovic, J.P. and Knox, E.H., 2024 IEEE International Symposium on Product Compliance Engineering (ISPCE), Chicago, IL, USA, 2024, pp. 1-4, doi: 10.1109/ISPCE61193.2024.10541214.