

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.

Education

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

BS, Electrical Engineering, Clemson University.

AS, Spartanburg Technical College.

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

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

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

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.