



**JAMES C. SMOLKA, P.E., CFEI, CESC, CEPSS
SENIOR CONSULTANT**

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Mr. James Smolka is a Senior Consultant for Engineering Systems Inc. (ESi). Mr. Smolka has over 20 years of experience in Electrical Engineering, particularly in the field of Electrical Power Engineering and Instrumentation and Controls (I&C) Engineering. 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.

Areas of Specialization

- Design and modification of electrical systems
 - Medium Voltage Switchgear, Low Voltage Switchgear, and Switchboards
 - Uninterruptible Power Supplies (UPS)
 - Unit Substations
 - Transformers
 - Motor Control Centers (MCCs)
 - Digital Protective Relays
 - Generators
 - Grounding 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
 - NFPA 70, National Electrical Code (NEC)
 - NFPA 70E, Standard for Electrical Safety in the Workplace
 - NFPA 79, Electrical Standard for Industrial Machinery
 - OSHA Regulations and Requirements
 - IEEE / ANSI / NEMA Standards
 - IEC Standards
- Design, implementation, and repair of variable speed motor drive systems (VFD)
- Design, implementation, and repair of PLC systems, HMI systems, and robotic systems

Education

M.S., Electrical Engineering, Clemson University (Electrical Power with Minor in Industrial Engineering)
B.S., Electrical Engineering, Clemson University
A.S., Spartanburg Technical College

Licensed Professional Engineer (P.E.)

State of North Carolina..... License No. 034493
State of South Carolina License No. 33049
State of Arizona License No. 63661
State of Alabama..... License No. 36673-E
State of Florida License No. 90387



Certifications

Functional Safety Consultant.....TUV Rheinland #10443/15
Certified Fire and Explosion InvestigatorCFEI 19327-10985
Certified Electrical Safety Compliance Professional CEMSCP-18-311
Certified Emergency Power Systems Specialist CEPSS-FM-19-043

Professional Affiliations/Honors

Institute of Electrical and Electronics Engineers (IEEE)

Positions Held

Engineering Systems Inc., Charlotte, North Carolina

Senior Consultant, 2013 – Present

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

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