

# KARLE F. WIGGINTON

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## EDUCATION

MAY 1987

### **BSEE – ELECTRICAL/ELECTRONIC SYSTEMS ENGINEERING**

UNIVERSITY OF IOWA, IOWA CITY, IA

Focus: ELECTRICAL / ELECTRONIC CONTROL SYSTEMS

### **PROFESSIONAL DEVELOPMENT**

CALIFORNIA INSTITUTE OF TECHNOLOGY – DUBUQUE, IA (AUG 2017)

SYSTEMS ENGINEERING – CERTIFICATE PROGRAM

UNIVERSITY OF WISCONSIN – MADISON, WI

PROJECT MANAGEMENT FOR ENGINEERS – SEMINAR

MILWAUKEE SCHOOL OF ENGINEERING – MILWAUKEE, WI

ELECTRO-HYDRAULIC CONTROL SYSTEMS - SEMINAR

HYDRAULIC SYSTEM COMPONENTS / CONTROLS - SEMINAR

## PROFESSIONAL EXPERIENCE

JUNE 2006 - JAN 2020

### **AUTOMATION SYSTEMS SENIOR ENGINEER – JOHN DEERE DUBUQUE WORKS**

- Lead Systems Engineer for John Deere Full Tree Forestry Track Products. Responsible for electrical, electronics, software design and specifications for multiple eras of products (J,K, and M Series Track Feller Buncher) (D and E Series Knuckleboom Loader)
- Lead application development for hard/software machine simulator systems for Full Tree Track & Wheeled Forestry products. Systems based on John Deere European Forestry simulator solutions. Established Simulator Systems engineering lab facility in Dubuque.
- Mentored several junior engineers in electrical design, and systems engineering (Dubuque, Pune India)
- Supported international design development with teams in Finland, New Zealand, and India.

DEC 1994 – JUNE 2006

### **ELECTRICAL SYSTEMS PRODUCT VALIDATION – JOHN DEERE DUBUQUE WORKS**

- Served in Product Verification & Validation capacity for various construction products. This including 4 yrs. in electro-hydraulic systems evaluation for the backhoe loader. First degreed electrical engineer to work in Deere C&F Hydraulics PV&V.
- Central team member for first ever enterprise wide electronic service tool system. (ServiceAdvisor). Developed service tool hardware strategy and software solutions for all John Deere Construction machinery.
- Team member for John Deere Construction first ever remote machine asset management tracking system. (DeereTrax). System utilizing GPS, cellular and satellite technologies.

**NOV 1988 – DEC 1994**

## **ELECTRICAL SYSTEMS DESIGN ENGINEER**

CATERPILLAR INC., MOSSVILLE, IL

- Electrical design engineer for various Caterpillar INC – North American products. Product including Backhoe Loaders, Ag (Challenger), CAT Skidders, and Military Products (Motor Graders).

## **HONORS / AWARDS**

- **US Patent** – Tree Counter for Saw Head in a Feller Buncher - #7,934,523 B2 (5/3/11)
- John Deere Enterprise Collaboration Awards
  - 2009 – K Series TFB Command Center, 2010 – TFB Simulator
- John Deere Enterprise Team Power Award – ServiceAdvisor Tool Development

## **INTERNATIONAL EXPERIENCE / INTERESTS**

### **INTERNATIONAL TEAM DEVELOPMENT**

- John Deere Technical Center – (Pune, India) – Full Tree Product Design / Development
- Waratah Forestry Product Development Center – (Tokoroa, NZ) – Full Tree Attachment Systems Development
- John Deere Forestry – (Tampere, Finland) – Full Tree Product Design / Development

### **INTERNATIONAL TRAVEL**

- **Asia** – Japan, South Korea, India
- **Europe** – England, France, Germany, Italy, Switzerland, and Finland
- **North America** – Mexico, Canada

### **INTERESTS**

- Travel, Fishing, Hiking, Reading, Appreciation for Theatre, and Classical Music
- **Volunteer Work** – Holy Family Catholic Schools (athletics, music, theatre, spiritual development), Dubuque Knights of Columbus (community development, serving poor outreach), John Deere Community Outreach (student workshops, STEM activities)
- Hosted four International Exchange students from South Korea, and one International College Student from China.

## **FUTURE VISION**

- Participate in the development and support of Oregon State’s Mechanized Harvesting Lab.
- Provide an interface to John Deere Forestry for the continued partnership and development of simulator systems for Oregon State University research.
- Participate in community outreach activities for OSU Forestry. Goal being to attract new talent to the Forestry environment and industry. (Operators, Managers and Owners)
- Pursue an education and research basis that provides a foundation for my post degree work. This to include means of advancing education for Forestry operators, managers and owners. Primary focus on harvesting system safety and productivity improvements.