OVERVIEW

Deere & Company (NYSE: DE) is a world leader in providing advanced products and services and is committed to the success of customers whose work is linked to the land - those who cultivate, harvest, transform, enrich and build upon the land to meet the world's dramatically increasing need for food, fuel, shelter and infrastructure. Since 1837, John Deere has delivered innovative products of superior quality built on a tradition of integrity.

Roles and Responsibilities
A graduate student electric drive intern supports product analysis, design, and/or testing activities for electric drive components and systems used on vehicles worldwide. Specific activities vary by position but will include one or more of the following responsibilities:

- Work with other engineers to define and develop the engineering requirements of electric drive components and systems.

1) Electric drive components include motors, generators, active rectifiers, inverters, convertors, batteries, high voltage wiring, and connectors.

2) Electric drive systems include traction systems, secondary drive systems, power management systems, auxiliary drives, and precision control systems.

- Integrate the electric drive system into the vehicle

- Design electric drive system interfaces and specify the related vehicle systems to meet the vehicle requirements.

- Test electric drive components in Deere high voltage labs
- Support the build, commissioning, and testing of the vehicle integration aspect of the electric drive system

- Test vehicles and systems being used in the end customer application to verify performance and to refine requirements

- Provide technical analysis and design of electric drive components, including electric machines, power conversion electronics, and harnesses

- Design motor control and system control algorithms for electric drives and vehicles

- Simulate electric drive systems and vehicle systems to develop control algorithms and to virtually verify performance prior to hardware availability.

**Education and Qualifications**

- Excellent communication skills.

- Working knowledge and hands-on experience testing electrical components using standard lab instruments such as oscilloscopes, multimeters, and power supplies. Familiarity with Microsoft Office Excel and Word.

- Familiarity with a symbolic programming language such as Simulink or LabView.

- Experience using modeling tools such as Matlab/Simulink and circuit analysis.

- Experience with electric machines and inverters.

- Enrolled in an Engineering Masters or PhD program. Course work or research with a concentration in an Electric Power field such as electric machines, power electronics, batteries, hybrid vehicles, or dynamics and control.

- Minimum required cumulative GPA of 3.4 on a 4.0 scale

**How to Apply**