SOFTWARE & TOOLS USED

Solid modeling/design
- SolidWorks Premium
- Autodesk Inventor
- Pro/ENGINEER (PTC Creo)
- AutoCAD
- PhotoView 360 - Solidworks
- Showcase - Autodesk Inventor
- Microsoft Visio
- AutoCAD P&ID
- Engineering drawings using GD&T per ASME Y14.5

Analysis
Finite Element Analysis
- SolidWorks Simulation
- Autodesk A360

Computational Fluid Dynamics
- Star CD/CCM+ (Current software)
- Fluent (have used in the past)
- CONVERGE (developing expertise)
- Autodesk A360
- Floworks

Magnetic Modeling
- Maxwell
- FEMM

Dynamic modeling
- MATLAB/Simulink/SimScape
- SolidWorks Motion Study
- PLECS

Hydraulic Simulation
- MATLAB/Simulink/SimScape
- HYSAN
- GT-SUITE – Flow Library; Hydraulic
- LMS Imagine.Lab Amesim (developing expertise)

GT Suite – GT-Power (developing expertise)

Thermodynamic Analysis
- MATLAB/Simulink/SimScape
- GT-SUITE (developing expertise)
- EES
- Refprop (NIST)
Embedded systems

Rapid prototyping of real time controls systems
- Simulink/Stateflow/ Real Time Workshop
- dSPACE
- Woodward/ Mototron/GAP
- National Instruments/LabVIEW
- Custom systems using Freescale MPC family microprocessors and Siemens C series microprocessors

Programming
- C, C++, C #, Silverlight, Visual Basic, FORTRAN
- MATLAB Coder/Simulink Coder

Communication protocols
- J1939, J1857, Modbus, XCP, CCP

Instrumentation and data acquisition systems
- National Instruments/LabVIEW
- Measurement Computing
- Custom designed systems

SCADA
- Allen Bradley AC800M PLC
- Woodward Micronet and Atlas

Data processing and presentation
- MATLAB
- JMP
- National Instruments DIAdem
- Excel
- Mathcad
- PowerPoint

Project and program management
- Microsoft Project
- Asana