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4. Know-How - Information within owner’s control that is not disclosed, acquired, or used by others without consent.
Patents

- America Invents Act (2013) - Awards a patent to the applicant who files the patent application first, not to the first to invent something.
- Provisional application - Filed to gauge marketability (one year).
- **Utility patent** - For the invention of a unique process, machine, article of manufacture, composition of matter, or an improvement of any of these.
- To be patentable, an invention must be **novel**, **nonobvious**, **useful**, adequately described, and claimed in clear, definite terms.
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The invention must be:

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• **Useful** – An invention is useful if it provides some identifiable benefit and is capable of use
• Adequately described
• Claimed in clear, definite terms
INTERFACE FOR POWER SYSTEMS

Applicant: The Florida State University Research Foundation, Inc., Tallahassee, FL (US)

Inventors: Michael Steurer, Crawfordville, FL (US); Karl Schader, Crawfordville, FL (US); Mark Stanovich, Crawfordville, FL (US); James Langston, Crawfordville, FL (US)

Assignee: The Florida State University Research Foundation, Inc., Tallahassee, FL (US)

Notes: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 63 days.

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Int. Cl. G05B 17/02

U.S. Cl.

Field of Classification Search
CPC .................. G05B 17/02; G05B 19/0425; G05B 22/19;G2446

See application file for complete search history.

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ABSTRACT

A controller hardware in the loop (CHIL) interface is disclosed. The CHIL interface comprises software and hardware that redirects a signal flow, including modulation signals and measurements exchanged between controller logic and a power electronics converter (PEC), to a CHIL port. Accordingly, the CHIL port provides access to the controller logic, at a digital level, throughout phases of the controller’s lifetime (i.e., design, installation, maintenance, upgrade). Thus, the CHIL interface facilitates the use of PEC simulators for testing. The CHIL interface can detach the actual PEC from the control logic so testing can be performed with or without an operating PEC and can avoid the need for dedicated and error prone signal conditioning circuitry that is external to the controller.

10 Claims, 2 Drawing Sheets
Not Patentable

- Laws of nature
- Physical phenomena
- Abstract ideas
- Inventions that are:
  - Not useful (perpetual motion machine)
  - Offensive to public morality (is there anything offensive nowadays?)
- Copyrightable material (literary, dramatic, musical, artistic, etc.)
- Most software code (copyright protected)
Inventor(s) vs. Owner

- Inventor(s) - The person or persons who contribute to the claims of a patentable invention and reduces it to practice
- Owner – The person or entity that files the patent application
  - Individual (not associated with any employer)
  - University (per employment contract and collective bargaining agreement)
  - Employer (usually claim ownership if employee discovers something at work)
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  • Computer code
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- License IP out to industry for royalties, recognition, collaboration, and for the public good (goal)
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  - Pre-grant prosecution – arguing/negotiating with a patent examiner to grant patent and amendments if necessary
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* Duke University - Office of Licensing & Ventures
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