

March 20, 2019

Dear Allan Grosvenor,

Thank you for contacting me about your vision and plans for GURU engineering assistant. After further research, I am even more impressed at the scope and feel this is addressing a real need within industry. My teams' focus is on compressor development, both positive displacement and dynamic, for HVAC equipment. Within each compressor team we have high technical capability and a diversity of educational background with many advanced degrees. Furthermore within these teams there are a multitude of computationally intensive engineering software tools utilized for structural, vibration, rotordynamics, fluid flow, heat transfer, and acoustical analyses.

One problem we face is to bring the full scope of multi-disciplinary optimization into our development cycle as it is simply too complex, time consuming, and expensive at the moment. The typical approach today is to optimize one aspect of the design with our engineering tools, then move to another aspect, and so on in a series approach. All along the way we need to circle back to the beginning of the process if there is a negative outcome in an analyses. To further expand on the problem statement, these steps involve a large group of people with different expertise that often make assumptions and decisions on a design. These decisions are sometimes done by an analysis expert without full understanding on impact to other critical features of the design, effectively removing the lead responsible design engineer from visibility on decision processes.

As envisioned, the GURU platform would give our design engineers much more access to the optimization process and control of the outcomes. Without the necessity of developing expertise for that individual in every discipline, they would still be able to guide the workflow through all of the engineering disciplines required and a full suite of tools. This is a very exciting prospect, and combined with streamlined access to high performance computing would represent an advancement in the state-of-art engineering design approach. I wish you success in the funding of this great concept. And of course, I would very much appreciate the opportunity to evaluate GURU in real life design challenges as this looks like a game changer!

Sincerely,

Director of Compressor Engineering