<div align="center">**DSG-NPS R&D Meeting Minutes**</div>

Date: February 08, 2022
Time: 02:00PM – 03:30PM

Attendees: Mary Ann Antonioli, Peter Bonneau, Aaron Brown, Pablo Campero, Brian Eng,
George Jacobs, Mindy Leffel, Tyler Lemon, Marc McMullen, and Amrit Yegneswaran

1. **Hardware Monitoring Program Development**
   Mary Ann Antonioli, Peter Bonneau, and Aaron Brown
   1. Discussed development of CSS Phoebus version of hardware monitoring LabVIEW program
      - A process diagram will be generated detailing communication paths between Keysight mainframe, LabVIEW, and EPICS process variables

2. **Hardware Interlock System Development**
   Mary Ann Antonioli, Peter Bonneau, and Aaron Brown
   1. Reviewed modifications to Keysight scanning LabVIEW program
      - Removed large *All Keysight Channels* array (~200 elements); sensor values are sent directly to array used by hardware monitoring program
      - Included while loop so program will run continuously
   2. Reviewed LabVIEW subVIs created to communicate with the Kodiak chillers – all nine device drivers have been created
      - Test program in development
   3. Installing additional thermocouples in Keysight terminal blocks (66 of 112 installed)
   4. Discussed development of LabVIEW User Interface program
      - Thermocouple locations will be labeled using crystal number as in hardware monitoring program