

## **Mines Computer Science Field Session – Summer 2022**

**Scope: Develop a web-based and mobile-friendly application and interface for live peer-review judging of oral and poster presentations for our 2022 annual convention.**

Organization Background: The American Association of Petroleum Geologists (AAPG) was founded in 1917 and has been a pillar of the worldwide scientific community for over a century. The purpose of AAPG is to foster scientific research, to advance the science of geology, to promote technology, and to inspire high professional conduct. The Rocky Mountain Section of AAPG (RMS-AAPG) is a chapter of AAPG that more specifically supports AAPG's endeavors in the Rocky Mountain Region.

The Rocky Mountain Section of the American Association of Petroleum Geologists (RMS-AAPG) will be hosting their annual convention in Denver, Colorado, July 24<sup>th</sup> – 27<sup>th</sup> 2022. During the conference there will be several days of technical in-person oral and poster presentations. Every year, these professional and student presentations are peer-reviewed and judged to award the best oral presentation (the Levorsen Award) and the best poster presentation.

In years past, the format for obtaining and tallying these results was done using pre-defined paper-copies of Excel spreadsheets that were printed and manually distributed and tabulated at the end of the conference. The conference committee would like to develop an application and interface that allows attendees to review and judge these presentations without the paper waste and streamline the results process.

In our research for existing solutions, the RMS-AAPG committee believes that there is a void in the industry for a solution of this nature. There are mobile applications for event and conference polling and to some degree more specific judging based on specific criteria, but none that economically allow the flexibility and integration of information that this type of conference requires. For example, there are several days of presentations, and within each day there are numerous sessions that host numerous presenters, and some presenters present multiple times on different topics. While the judging criteria is standardized - like quality of content, technical relevance, and timing, the ability to tie these reviews to a specific speaker in a specific session would be invaluable for collecting accurate and timely ratings.

RMS-AAPG judging committee would love to collaborate with a group of entrepreneurial students who are eager to help make our vision a reality. The team would ideally be 5+ students, and while there is no guarantee, our committee believes there is a benefit and utility for other scientific societies that host similar conferences. It is our anticipation that this will be a collaborative and iterative relationship during development. The RMS-AAPG committee will provide an overview and detailed illustration flow-chart of the desired interface and required inputs and will provide the format and content for the judging criteria and the list of sessions, topic titles and authors. We are also location agnostic as many of the 2022 RMS AAPG committee are not based in Denver.

This endeavor allows the CSM CS department to assist a long-standing and nationally recognized geoscience association to modernize and promote core association beliefs in technical advancement and cross-discipline collaboration. RMS-AAPG understands the specific and limited timing of the summer field session and accepts that final execution of the application may not be obtainable by July 2022, and if necessary, we can continue this development with the 2023 field session for our next annual conference in 2023.

We look forward to hearing from you.

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