

Jessica Holmes is a 3<sup>rd</sup> year PhD student at Queen's University Belfast, hosted by the British Geological Survey Nottingham. Jessica's PhD research is broadly focused on the use of electrical resistivity tomography (ERT) for monitoring slopes which affect transport infrastructure. Through 4-D ERT data and laboratory derived calibrations, Jessica is able to assess the spatial and temporal variability in moisture content and soil suction with the goal of developing moisture thresholds for failure. Jessica's



background is in Geography (BSc & MSc Geography Durham University) and was completely new to geophysics at the start of her PhD. Jessica has always been interested in landslides and the factors that affect slope stability, and near-surface geophysics represented an opportunity to gain detailed insight into the spatial and temporal distribution of moisture in the ground not possible with other methods. Despite facing a steep learning curve, Jessica has found her PhD to be extremely rewarding and enjoys the daily challenges in data processing and interpretation. As a student, Jessica has received numerous accolades including Best Student Paper in Geotechnical Engineering (CERI 2018) and the 2019 Victor Milligan Travel Scholarship for fieldwork in Canada. Jessica is also active in the near-surface geophysics community and helped to co-organize last year's BAG-NAG meeting on near-surface geophysics in London. Although Jessica has not yet attended an AGU Fall Meeting, she looks forward to attending the 2020 Fall Meeting in San Francisco. After graduation, Jessica would love to stay in research and further develop her experience using near-surface geophysics for slope stability assessment and monitoring.

For more information about his research please contact [Jessica Holmes](#).

*Interested in being highlighted, or know a student who should be? Please email [Matthew Sirianni](#) for more information about the Student Spotlight. We are also seeking research highlights that showcase use of near-surface geophysics in other [AGU sections and focus groups](#). If you are interested in writing a short, one-page highlight, please contact [Kisa Mwakanyamale](#).*