|  |  |
| --- | --- |
|  | |
| Book Name: | [Geography, Earth Science and Environment: Research Highlights](https://www.bookpi.org/bookstore/product/geography-earth-science-and-environment-research-highlights-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_3998** |
| Title of the Manuscript: | **The application of Terrestrial LiDAR for geohazard mapping, monitoring and modelling in the British Geological Survey** |
| Type of the Article | **Book chapter** |

|  |  |  |
| --- | --- | --- |
| PART 1: Comments | | |
|  | Reviewer’s comment | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This manuscript is of great importance to the scientific community as it demonstrates the diverse applications of Terrestrial LiDAR (TLS) in geohazard mapping, monitoring and modeling. It highlights the British Geological Survey's advances in geomatic technologies and provides practical information through case studies of dynamic environmental systems, such as glaciers and coastal cliffs. Focusing on the accuracy of TLS, the manuscript addresses the crucial challenges of monitoring hazardous and rapidly changing geological environments. The integration of TLS with complementary technologies such as UAVs and GNSS offers a roadmap for future geospatial research and applications. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The current title, "The application of Terrestrial LiDAR for geohazard mapping, monitoring and modelling in the British Geological Survey," is suitable as it clearly reflects the content. However, to make it more engaging and aligned with modern scholarly standards, I suggest: "Advancing Geohazard Mapping and Monitoring with Terrestrial LiDAR: Insights from the British Geological Survey." |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The abstract is well-written but could benefit from slight adjustments to increase its impact and comprehensiveness:   * Add a mention of the key innovations or methodologies used. * Include a concluding sentence on the implications of TLS applications for future research and environmental management. * Example addition: "This research underscores TLS's transformative potential in geosciences, particularly for advancing disaster resilience, environmental monitoring, and geological conservation efforts." |  |
| **Is the manuscript scientifically, correct? Please write here.** | Yes, the manuscript is scientifically accurate. It provides a thorough explanation of TLS technology, methodologies, and applications supported by appropriate case studies and data. The integration of TLS with other geospatial tools is well-founded and reflects current scientific understanding. However, a brief section discussing the limitations of TLS (e.g., cost, data voids, or challenges in specific terrains) would provide a more balanced perspective. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | Yes, the references are generally sufficient. |  |
| Is the language/English quality of the article suitable for scholarly communications? | The language is clear and professional, suitable for scholarly communication. Minor improvements in sentence structure and transitions would enhance readability:  Example edit: Original: "TLS allows geological outcrops to be digitally captured with unprecedented resolution and accuracy." Revised: "TLS captures geological outcrops digitally with unmatched resolution and accuracy, offering transformative insights for geoscientific research." |  |
| Optional/General comments | Consider adding a comparative analysis of TLS with UAV-based or satellite LiDAR systems to highlight its unique strengths and limitations.  Enhance figure captions to include more detailed descriptions, ensuring accessibility to readers less familiar with TLS data.   * The manuscript is scientifically accurate, well-organized, and relevant to the field, showcasing significant advancements in Terrestrial LiDAR applications. * The title is appropriate, and the references are sufficient, though a few recent additions could enhance the work. * Minor improvements are needed in language flow, abstract comprehensiveness, and additional discussions on limitations and future perspectives. |  |

|  |  |  |
| --- | --- | --- |
| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in details)* |  |

|  |  |
| --- | --- |
| **Reviewer Details:** | |
| Name: | **Patrick Muanza Kant** |
| Department, University & Country | **University of Iceland, Iceland** |