Embracing Robotics and Artificial Intelligence in Land Surveying Education

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SUMMARY

The acceptance of robotics and artificial intelligence in land surveying education is essential to adapt our curriculums and practices into the transformed century. Over the course of time, technological alternatives have changed the way geospatial surveying interacts and performs. These practices have enhanced efficiency, accuracy, decision making, data collection and data management speeds, among others in the various surveying tasks. Although, automatization has become one of the most influentials tools and has resulted in a reduction of most internal technology systems. This downsize has provided an incentive to the education community since the instruments are more affordable.

The more prominent the land surveying education spaces with inclusive robotics and artificial intelligence are, the greater the preparation of future land surveyors and professionals in the field to leverage the latest technologies. Update modules and focused courses with applications in land surveying, as well as provide theoretical and practical foundations and applications to distinguished and maximized these technologies. Training, laboratory sessions, experimental practices are designed where learners can work hand in hand. Foster partnership with professional surveyors with private practice, industry leaders and technology companies to allow learners to relate to a near future based on real world applications, cutting-edge tools, latest advancements safety regulations on site. Simulating scenarios to practice tasks virtually exposes the learner to a wide versatility on judging, decision making and better planning on projects. Introduce a multi-disciplinary approach, integrating disciplines from civil, industrial, mechanical and computer science engineering. Develop learning interactive materials that define robotics and artificial intelligence applications to the curriculum while the learner measures efficiency and time management. Aid in quality control to develop skills to detect errors and discrepancies in survey data, data processing ensuring higher accuracies. Provide the legal aspects foundation for the use and development of these tools in the

land surveying profession.

Adopting a lifelong learning vision with robotics and artificial intelligence prepares high quality graduates that meet industry with strong abilities to diversify their skillset and continually adapt and learn. The greater the exposition, involvement and former education, the greater career paths and the community of practice, therefore the greater the awareness raising of the global challenges for land surveyor's role in the world.