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Autore	Ghilani Charles D.
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Sommario/riassunto

For Surveying courses offered in Civil Engineering departments This highly readable, best-selling text presents basic concepts and practical material in each of the areas fundamental to modern surveying (geomatics) practice. Its depth and breadth are ideal for self-study. Elementary Surveying, Fourteenth Edition, is updated throughout to reflect the latest advances and technology. Teaching and Learning Experience This program will provide a better teaching and learning experience-for you and your students. It will help: Emphasize the Theory of Errors in Surveying Work: Common errors and mistakes are listed to remind students to exercise caution in their work. Use Strong Pedagogy Tools to Teach: Numerous worked example problems, figures, illustrations, and end-of-chapter problems help students apply concepts. Reflect the Latest Advances in Technology: To keep your course current and relevant, this edition covers the latest advancements in surveying technology.

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Autore

Saleh Lait Abu <1980->

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Sommario/riassunto

Long description: An implantable system to invasively acquire muscle activity for controlling a bionic hand prosthesis is presented. The system utilizes two wireless interfaces for data and power transmission. Furthermore, a multichannel custom made low-power application specific integrated circuit (ASIC) was designed in 130 nm technology to amplify, filter and digitize the analogue muscle-activity. A trade-off between power consumption, silicon area and noise was considered during the design phase. The implant system was successfully tested by several animal experiments (sheep and rhesus macaques). The invasively recorded muscle activity possesses a higher amplitude, higher selectivity and more stability than its surface recorded counterpart. It provides an opportunity for simple and smooth control of a hand prosthetic system with high number of degrees of freedom.