

JOURNAL OF APPLIED GEODESY

EDITORS-IN-CHIEF

Hans-Berndt Neuner, Vienna

Chris Rizos, Sydney

EDITORIAL BOARD

Xiaoli Ding, Hong Kong

Andreas Eichhorn, Darmstadt

Naser El-Sheimy, Calgary

Linlin Ge, Sydney

Vassilis Gikas, Athens

Dorota Grejner-Brzezinska, Columbus

Cheinway Hwang, Hsinchu

Allison Kealy, Melbourne

Heiner Kuhlmann, Bonn

Hansjorg Kutterer, Frankfurt

Xiaolin Meng, Nottingham

Gyula Mentés, Sopron

Wolfgang Niemeier, Braunschweig

Alexander Reiterer, Freiburg

Guenther Retscher, Vienna

Volker Schwieger, Stuttgart

Peter Teunissen, Delft and Perth

Andreas Wieser, Zürich

Caijun Xu, Wuhan

DE GRUYTER

JOURNAL OF APPLIED GEODESY is a forum for peer-reviewed research articles in the area of application of geodesy to engineering and other natural sciences. It publishes innovative contributions on sensor developments, multi-sensor systems and sensor data fusion focusing on the capture of georeferenced data. Hence topics related to navigation and mobile mapping will also be covered. The scope includes optical and microwave 3-D measurement techniques and other sensors for geotechnical measurements. Furthermore, applied geodesy articles from all areas of satellite-based geodetic networks, deformation measurements, deformation analysis, modelling of local geodynamic processes and the development of intelligent alert systems, measurement techniques for large construction sites and mechanical engineering will be presented. With increased use of the tools of Artificial Intelligence for sensor control, sensor fusion and data analysis, manuscripts on these topics with a strong emphasis on applied geodesy will also be published.

ABSTRACTED/INDEXED IN Astrophysics Data System (ADS) · Baidu Scholar · CNKI Scholar (China National Knowledge Infrastructure) · CNPIEC: cnpLINKer · Current Geographical Publications · Dimensions · EBSCO (relevant databases) · EBSCO Discovery Service · Ei Compendex · Engineering Village · Genamics JournalSeek · GeoArchive · Geobase · GeoRef · Google Scholar · Index Copernicus · Inspec · Japan Science and Technology Agency (JST) · J-Gate · JournalGuide · MyScienceWork · Naver Academic · Naviga (Softweco) · Norwegian Register for Scientific Journals, Series and Publishers · Primo Central (ExLibris) · ProQuest (relevant databases) · Publons · QOAM (Quality Open Access Market) · ReadCube · Reaxys · ScienceON (Korea Institute of Science and Technology Information) · Scilit · SCImago (SJR) · SCOPUS · Semantic Scholar · Sherpa/RoMEO · Summon (ProQuest) · TDNet · Ulrich's Periodicals Directory/ulrichsweb · WanFang Data · Web of Science: Emerging Sources Citation Index · WorldCat (OCLC) · X-MOL · Yewno Discover

The publisher, together with the authors and editors, has taken great pains to ensure that all information presented in this work (programs, applications, amounts, dosages, etc.) reflects the standard of knowledge at the time of publication. Despite careful manuscript preparation and proof correction, errors can nevertheless occur. Authors, editors and publisher disclaim all responsibility for any errors or omissions of liability for the results obtained from use of the information, or parts thereof, contained in this work.

The citation of registered names, trade names, trademarks, etc. in this work does not imply, even in the absence of a specific statement, that such names are exempt from laws and regulations protecting trademarks etc. and therefore free for general use.

All information regarding notes for contributors, subscriptions, Open access, back volumes and orders is available online at www.degruyter.com/jag.

ISSN 1862-9016 - e-ISSN 1862-9024 - CODEN JAGOCE

RESPONSIBLE EDITORS Prof. Dr. Hans-Berndt Neuner, Research Division Engineering Geodesy, Department for Geodesy and Geoinformation, Vienna University of Technology, Wiedner Hauptstrasse 8–10, 1040 Vienna, Austria, e-mail: hans.neuner@geo.tuwien.ac.at
Prof. Dr. Chris Rizos, School of Civil and Environmental Engineering, University of New South Wales, Sydney NSW 2052, Australia, e-mail: c.rizos@unsw.edu.au

PUBLISHER Walter de Gruyter GmbH, Berlin/Boston, Genthiner Straße 13, 10785 Berlin, Germany

JOURNAL COORDINATOR Torsten Krüger, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany, Tel.: +49 (0)30 260 05-176, Fax: +49 (0)30 260 05-352, e-mail: torsten.krueger@degruyter.com

ADVERTISEMENTS e-mail: anzeigen@degruyter.com

© 2024 Walter de Gruyter GmbH, Berlin/Boston, Germany

TYPESETTING TNQ Tech Private Limited, Chennai, India

PRINTING Franz X. Stücker Druck und Verlag e.K., Ettenheim



Contents

Original Research Articles

Ahmed Sherif, Mostafa Rabah, Ashraf El-Kutb Mousa, Ahmed Zaki, Mohamed Anwar and Ahmed Sedeek
Ionospheric TEC modeling using COSMIC-2 GNSS radio occultation and artificial neural networks over Egypt — 359

Hong Sheng Lee, Wan Anom Wan Aris, Tajul Ariffin Musa, Ahmad Zuri Sha'ameri, Ooi Wei Han, Dong-Ha Lee and Mohammad Asrul Mustafar
Regional GPS orbit determination using code-based pseudorange measurement with residual correction model — 375

Zahroh Arsy Udama, Sten Claessens, Ira Mutiara Anjasmara and Agustina Nur Syafarianty
Analysis of different combinations of gravity data types in gravimetric geoid determination over Bali — 391

Aya M. Megahed, Ibrahim F. Ahmed, Heba S. Tawfik and Gamal S. El-Fiky
Assessment of satellite images terrestrial surface temperature and WVP using GNSS radio occultation data — 407

Phunsap Thari, Thayathip Thongtan and Chalermchon Satirapod
GNSS positioning accuracy performance assessments on 1st and 2nd generation SBAS signals in Thailand — 421

Heba Basyouni Ibrahim, Mahmoud Salah, Fawzi Zarzoura and Mahmoud El-Mewafi
Differential synthetic aperture radar (SAR) interferometry for detection land subsidence in Derna City, Libya — 433

Gulmira Madimarova, Toleuzhan Nurpeissova, Azhar Ormambekova, Diana Suleimenova and Aizhan Zhildikbayeva
Advanced topographic-geodetic surveys and GNSS methodologies in urban planning — 449

Lakshman Kuruva, Maheswara Rao Avula and Dattatreya Sarma Achanta
Detection of GNSS ionospheric scintillations in multiple directions over a low latitude station — 463

Annisa Rizky Kusuma, Cecep Pratama, Nurrohmat Widjajanti, Yulaikhah, Oktadi Prayoga and Evi Dwi Kurniasari
Spatiotemporal postseismic due to the 2018 Lombok earthquake based on insar revealed multi mechanisms with long duration afterslip — 473

Milaa Zyad Murshan, Balaji Devaraju, Balasubramanian Nagarajan and Onkar Dikshit
Practical implications in the interpolation methods for constructing the regional mean sea surface model in the eastern Mediterranean Sea — 483

Patroba Achola Odera, Ojima Isaac Apeh, Loudi Yap and Matthews Siphwe Mphuthi
Validation of a tailored gravity field model for precise quasigeoid modelling over selected sites in Cameroon and South Africa — 499

Jyothsna S. R. S. Koiloth, Dattatreya Sarma Achanta and Padma Raju Koppireddy
Evaluation of ML-based classification algorithms for GNSS signals in ocean environment — 513

Dinithi Udari Edirisinghe, Duminda Ranganath Welikanna, Thunendran Periyandy and Ranmalee Bandara
Development of a hybrid geoid model using a global gravity field model over Sri Lanka — 525

Jenan Rajavarathan, Guenther Retscher and Gajanan Karunanithy
Implementation of GAGAN augmentation on smart mobile devices and development of a cooperative positioning architecture — 541

Dariusz Tomaszewski, Renata Pelc-Mieczkowska and Jacek Rapiński
On the GPS signal multipath at ASG-EUPOS stations — 553