

Editor-in-Chief of AGH University of Science and Technology Press: *Jan Sas*

Editorial Board:

Editor-in-Chief: *Piotr Parzych*

Statistical Editor: *Anna Barańska*

Linguistic Corrector: *Norman L. Butler*

Theme Editor – engineering industries surveying: *Alina Wróbel*

Theme Editor – mining surveying and protecting mining areas: *Ryszard Hejmanowski*

Theme Editor – photogrammetry, remote sensing and geoinformatics: *Krystian Pyka*

Theme Editor – environmental engineering: *Stanisław Gruszczyński*

Theme Editor – cadastre and real estate management: *Piotr Parzych*

Members: *Jan W. Dobrowolski, Ewa Panek*

Secretaries: *Agnieszka Bieda, Paweł Hanus*

Advisory Board:

prof. dr hab. inż. Stefan Cacoń (Uniwersytet Przyrodniczy we Wrocławiu)

prof. dr inż. Janusz Dominik (Université de Genève)

univ.-prof. dr. techn. Bernhard Hofmann-Wellenhof (Technische Universität Graz)

prof. dr hab. inż. Ryszard Hycner (Akademia Górnictwo-Hutnicza im. St. Staszica w Krakowie)

prof. dr.-ing. Hans-Rainer Kulpe (Universität Bochum)

prof. dr.-ing. Heinz-Juergen Przybilla (Universität Bochum)

prof. dr.-ing. habil. Anton Sroka (Technische Universität Bergakademie Freiberg)

prof. dr hab. inż. Sabina Źróbek (Uniwersytet Warmińsko-Mazurski)

DOI: <http://dx.doi.org/10.7494/geom>

The printed version of the journal is the primary one.

The articles published in the “Geomatics and Environmental Engineering” have been given a favourable opinion by the reviewers designated by the Advisory Board.

Technical Editor: *Joanna Ciągala*

Cover Designer: *Beata Barszczewska-Wojda*

Typesetting and Desktop Publishing by ESUS Tomasz Przybylak, tel. 61 835 35 36

© Wydawnictwa AGH, Krakow 2013

ISSN 1898-1135 (printed)

ISSN 2300-7095 (on-line)

Copies of periodic: 60

AGH University of Science and Technology Press (Wydawnictwa AGH)

al. Mickiewicza 30, 30-059 Kraków

tel. 12 617 32 28, tel./fax 12 638 40 38

e-mail: redakcja@wydawnictwoagh.pl

<http://www.wydawnictwa.agh.edu.pl>, <http://wydawnictwoagh.pl>
