

# ENGINEERING TRANSACTIONS **Founded 1952** **Appears since 1953**

Copyright ©2012 by Institute of Fundamental Technological Research  
Polish Academy of Sciences, Warsaw, Poland

## Aims and Scope

ENGINEERING TRANSACTIONS promotes research and practise in engineering science and provides a forum for interdisciplinary publications combining mechanics with material science, electronics (mechanotronics), medical science and biotechnologies (biomechanics), environmental science, photonics, information technologies and other engineering applications. The Journal publishes original papers covering a broad area of research activities including experimental and hybrid techniques as well as analytical and numerical approaches. Engineering Transactions is a quarterly issued journal for researchers in academic and industrial communities.

## INTERNATIONAL COMMITTEE

|                                       |                                 |
|---------------------------------------|---------------------------------|
| S. A. ASTAPCIK ( <i>Byelorussia</i> ) | P. PERZYNA ( <i>Poland</i> )    |
| A. CARPINTERI ( <i>Italy</i> )        | L. TOTH ( <i>France</i> )       |
| G. DOBMANN ( <i>Germany</i> )         | Z. WESOŁOWSKI ( <i>Poland</i> ) |
| T. IWAMOTO ( <i>Japan</i> )           | P. WOOD ( <i>U.K.</i> )         |
| A. N. KOUNADIS ( <i>Greece</i> )      | G. VOYIADJIS ( <i>USA</i> )     |
| J. LIN ( <i>U.K.</i> )                | R. ZAERA ( <i>Spain</i> )       |
| T. ŁODYGOWSKI ( <i>Poland</i> )       |                                 |

## EDITORIAL COMMITTEE

|                              |   |
|------------------------------|---|
| R. PECHERSKI – <b>Editor</b> | A. RUSINEK – <b>Co Editor</b>                   |
| Z. AZARI                     | K. KOWALCZYK-GAJEWSKA                           |
| P. CHEVRIER                  | Z. KOWALEWSKI                                   |
| B. GAMBIN                    | P. LIPIŃSKI                                     |
| J. HOLNICKI-SZULC            | K. KRIEGEL – assistant of the Co Editor         |
|                              | ENIM, 1 route d'Ars Laquenexy                   |
|                              | 57078 Metz Cedex 03                             |
|                              | Phone: +33 3 87344266, E-mail: relinter@enim.fr |

J. ŻYCHOWICZ-POKULNIEWICZ – secretary

Address of the Editorial Office:  
Engineering Transactions  
Institute of Fundamental Technological Research  
Pawińskiego 5B, PL 02-106 Warsaw, Poland

Phone: (48-22) 826 12 81 ext. 206, Fax: (48-22) 826 98 15, E-mail: engtrans@ippt.pan.pl

## Abstracted/indexed in:

Applied Mechanics Reviews, Current Mathematical Publications, Elsevier, EMBASE, Engineering Village, Inspec, Mathematical Reviews, MathSci, Reaxys, Scopus, Zentralblatt für Mathematik.

<http://et.ippt.pan.pl/>

**Address of the Editorial Office:**

Engineering Transactions  
Institute of Fundamental Technological Research  
Pawińskiego 5B  
PL 02-106 Warsaw, Poland  
Phone: (48-22) 826 12 81 ext. 206, Fax: (48-22) 826 98 15  
E-mail: engtrans@ippt.pan.pl

**SUBSCRIPTIONS**

**Subscription orders for all journals edited by Institute of Fundamental Technological Research (IPPT) may be sent directly to the Publisher: Institute of Fundamental Technological Research  
e-mail: subscribe@ippt.pan.pl**

Please transfer the subscription fee to our bank account:  
Payee: IPPT PAN  
Bank: Pekao S.A. IV O/Warszawa  
Account number 05124010531111000004426875.

---

**WARUNKI PRENUMERATY**

**Prenumeratę na wszystkie czasopisma wydawane przez Instytut Podstawowych Problemów Techniki PAN przyjmuje Dział Wydawnictw IPPT.**

**Bieżące numery Engineering Transactions można nabyć bezpośrednio w Redakcji:**

**ul. Pawińskiego 5B, 02-106 Warszawa  
Tel.: (48-22) 826 60 22; Fax: (48-22) 826 98 15  
e-mail: subscribe@ippt.pan.pl**