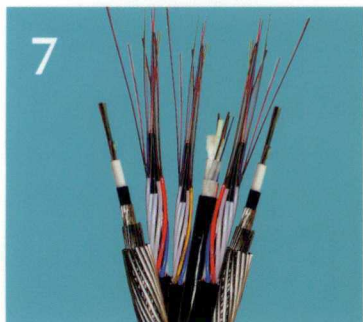


ACADEMIA

No. 3 (3) 2004 The Magazine of the Polish Academy of Sciences



Focus on Optical Internet

Gateway to the e-World

Jan Węglarz

The PIONIER Network places Poland among the first countries involved in creating the next generation of network services and applications

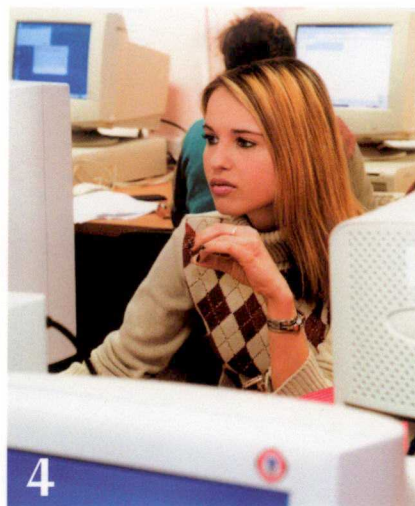


Research in Progress

To Ingest and to Digest

Tadeusz Michałowski

Perhaps you believe goats or cows feed on grass? Wrong! These animals would go hungry without little helpers that do the job in their stomachs



Focus on Psychology

Thriving in the Internet

Krystyna Skarżyńska, Kamil Henne

Direct interpersonal contacts are being increasingly replaced by media-based ones. Social psychologists investigate the results

Editorial 3

Focus on

Psychology 4

Thriving in the Internet, Krystyna Skarżyńska, Kamil Henne

Optical Internet 7

Gateway to the e-World, Jan Węglarz

Ethology 10

Earth: Planet of the Ants, Ewa J. Godzińska

Technology 14

Designing a New Heart, R. Kustosz, R. Major, T. Wierzchoń, B. Major

Research in Progress

Sociology 18

Welcome to the e-Society, Maciej D. Kryszczuk

Climatology 20

Our Ever Warmer World, Zbigniew W. Kundzewicz

Surface Chemistry 22

Harnessing Hydrogen, Robert Nowakowski

Animal Physiology 24

To Ingest and to Digest, Tadeusz Michałowski

Education 26

Technology in the Classroom, Stefan M. Kwiatkowski

Astronautics 28

Human Phantom in Orbit, Paweł Bilski

Management 30

The Change Lab, Andrzej K. Koźmiński

Fluid Mechanics 32

Fluids in Motion, Tomasz A. Kowalewski

Environmental Sciences 35

Keeping the Landscape Running, Andrzej Kędziora, Lech Ryszkowski

Medicine 38

Overcoming Cell Rejection, Waldemar L. Olszewski

Human Geography 40

Interface with Europe, Tomasz Komornicki

Briefly Speaking

The Dream of a Fluorescent Brain 42

Highlights 45

Insight 46

Modernizing Rural Areas 46

Andrzej Rosner

Science in Eastern Poland 48

Jan Gliński

Short Circuit 50

Towards a Knowledge-Based Society 50

Michał Kleiber

Gallery 51

Cover photo by Krzysztof Kaliński

Page 2 photos by: Jan Węglarz, Tadeusz Jezierski, Michał Siewewicz