University of Michigan
College of Engineering

Dr. Anatole S. and Pamela D. Dekaban Fund

2006-07 Annual Report

Prepared by
Professor Radoslaw L. Michalowski
Dekaban Program Coordinator

February 2008

Warsaw University of Technology
The Main Building
# Table of Contents

Executive Summary 3

2005-2006 Activities

  Administrative Activity 4
  Dekaban Fellowships 5
  WUT - U-M Interactions 6
  Other Activities 8

Plans for 2007-2008 10

Financial Report 11

Appendices

  Appendix A: Dekaban Fund Advisory Council and Program Committee i
  Appendix B: Dekaban Fellow Profiles iii
  Appendix C: Visitor Profiles v
  Appendix D: Dekaban Fund Endowment Agreement x
Executive Summary

The Dekaban Fund was created in 1993 with the gift of Dr. Anatole S. and Mrs. Pamela D. Dekaban. The purpose of the Dekaban Program is to encourage the exchange of technical knowledge between advanced academic professionals in various fields of engineering at the Warsaw University of Technology (WUT) in Warsaw, Poland, and at the University of Michigan (U-M) College of Engineering (CoE) in Ann Arbor, Michigan.

The primary activities of the program are sponsored fellowships which enable junior faculty from WUT to come to the University of Michigan to collaborate with faculty, gain experience in their respective fields, and promote future joint research efforts. Two Dekaban Fellows visited U-M during fiscal year 2007 (July 1, 2006-June 30, 2007) and arrangements were made for two more fellows to join U-M in 2008. FY2007 marked the fourteenth year of the Program’s existence and, thus far, twenty fellows have visited various departments in the U-M College of Engineering.

The Fund is fiscally healthy, and the activities planned for FY2008 include long-term visits of two fellows and at least one short visit of a senior faculty member.
2006-2007 Activities

Administrative Activity

Dekaban Program Committee
The meeting the Dekaban Program Committee at the Warsaw University of Technology took place on March 1, 2007. The Committee discussed the program of activities for the coming year with University of Michigan program coordinator, Professor Radoslaw Michalowski. No candidates for long-term Dekaban Fellowships were named at that meeting. However, short-term visits of two senior faculty members at WUT were confirmed.

Meeting of the WUT Dekaban Program Committee on March 1, 2007;
Left to right: Professor R. Michalowski, Professor Piotr Wolanski,
Professor J. Kozak, and Professor W. Radomski,

Academic year 2006-2007 marked significant changes in administration at the University of Michigan’s College of Engineering. Dr. David Munson became the new Robert J. Vlasic Dean of Engineering, and International Programs welcomed a new director, Dr. Amy Conger. The College Committee on International Programs meets several times a year, and the Dekaban Program was reviewed during one of the meetings. The
Committee members reached a unanimous decision that the Program should continue in the form it has been operating, and no major changes have been suggested.

**Dekaban Fellowships**

Two Dekaban Fellows visited the College of Engineering in the academic year 2006-07. Dekaban Fellowships are a key element of the Dekaban Program. The Fellows are recruited primarily from the assistant professor rank of faculty at the Warsaw University of Technology, and the candidates can be selected from any department at WUT that has a counterpart at the U-M College of Engineering. The Dekaban Program hosted two Fellows in 2006-07: Dr. Anna Szerenos who worked with the Department of Industrial and Operations Engineering (IOE), and Dr. Maciej Zasuwa, who had his home at the Department of Aerospace Engineering (AERO).

**Dr. Anna Szerenos**

Dr. Anna Szerenos joined the College of Engineering as a visiting assistant research scientist from October 2006 through April 2007. Dr. Szerenos is an associate professor in the Faculty of Production Engineering at WUT.

While at U-M, Dr. Szerenos studied interactions in the automotive cluster in Michigan, specifically between and among original equipment manufacturers, suppliers, universities and other related institutions. Under the supervision of Department Chair and Professor Larry Seiford, her analysis was performed in collaboration with representatives from Ford Motor Company and the University of Michigan Transportation Research Institute.

Specifically, her work consisted of 1) analysis of the cluster, 2) analysis of the impact of collaboration in research and development on innovation level of companies in the cluster, and 3) analysis of institutions providing innovation support in terms of their role in technology transfer between research and development institutions and industry.

Serving as a Dekaban Fellow allowed Dr. Szerenos to perform her studies in southeastern Michigan’s well established automotive industry, accelerating her research and improving her access to literature, databases, industry representatives and other critical resources. While in Ann Arbor, she also utilized the opportunity to improve her English through biweekly language classes.

**Dr. Maciej Zasuwa**

Dr. Zasuwa joined the College of Engineering for the 2006-07 academic year as a visiting assistant research scientist and Dekaban Fellow. An assistant professor of power engineering and aeronautics at WUT, Dr. Zasuwa’s work in Poland focuses on teaching and research in the area of control and navigation of unmanned aerial vehicles (UAVs).
More specifically, his efforts explore the autonomous control of UAVs so that when vehicles are sent on a mission, the autopilot system is able to “think” and make correct decisions.

From October 2006 through July 2007, Dr. Zasuwa worked under the supervision of Professor Ella Atkins. Building upon his research with UAVs in Poland, he worked to model a particular scenario of UAV flight in which there is a malfunction onboard, such as a control surface jam. Together, he and a team of graduate students worked to develop an algorithm to program the autopilot system to accommodate the malfunction in real time, adjust quickly and bring the vehicle safely back to Earth.

Visiting U-M as a Dekaban Fellow allowed Dr. Zasuwa the opportunity to work with a strong team on UAV research. He noted that the College of Engineering employs very experienced faculty who have worked extensively on UAVs. Like many other Dekaban Fellows, Dr. Zasuwa noted the concentration of resources available at the College of Engineering, such as databases and libraries. He learned a great deal from the experiences of others and looks forward to sharing that knowledge in his teaching and bringing new ideas to his research in Poland.

WUT – U-M Interactions

Senior Dekaban Fellows Visit the College of Engineering

Professor Eugeniusz Molga

Professor Eugeniusz Molga visited the College of Engineering in May of 2007. He was hosted by Professor Johannes Schwank in the Department of Chemical Engineering for two weeks. During his visit, Dr. Molga delivered a seminar entitled “No More Runaways in Fine Chemical Reactors.”

Dr. Molga reviewed his research with and explored collaboration opportunities with various Chemical Engineering faculty, including Department Chair and Professor Ron Larson and Professors Scott Fogler, Levi Thompson and Phil Savage. In his discussions, he found a general compatibility of his research with that of the U-M faculty, though the actual research and equipment differ to some extent.

In the future, Dr. Molga would like to facilitate an exchange with the U-M College of Engineering, with WUT faculty visiting Ann Arbor to do post-doctoral research. Specifically, he believes the greatest opportunity for collaboration is in hydrogen production and the modeling of reactors to produce hydrogen. During his interactions on
campus, Dr. Molga identified another area of opportunity for his research and in work with U-M—the safety of chemical reactors.

In addition to a post-doctoral research exchange program, Dr. Molga would like Professors Fogler and Schwank to visit WUT to work on research together and share information. Dr. Molga is very impressed with the textbook *Elements of Chemical Reaction Engineering*, co-authored by Professor Fogler, and would like to use the book in chemical engineering courses at WUT. Presently, he is working to identify a potential Polish publisher. Once a publisher is sourced, he hopes to draw on his professional background and technical vocabulary to translate the book himself.

Professor Eugeniusz Molga with wife Lidia in the Masco Commons, a faculty lounge in the Robert H. Lurie Engineering Center at the U-M College of Engineering

**Dr. Bogdan Rymsza**

Dr. Bogdan Rymsza visited the College of Engineering in late May of 2007. Dr. Rymsza gave a seminar at the Department of Civil and Environmental Engineering on May 24, entitled “Loads on Rigid Retaining Walls and Displacements Due to Backfilling”. The seminar was attended by CEE faculty and geotechnical engineering graduate students, and led to an extensive discussion.
**Professor Perakis of Naval Architecture and Marine Engineering visits WUT**

In May of 2007, U-M Professor Tassos Perakis visited the Department of Environmental Engineering at WUT. He gave a seminar on May 10 on the subject of economic impact of proposed measures to limit the introduction of non-indigenous species in the Great Lakes. Prof. Perakis was hosted by the department head Professor Zbigniew Kledynski, and Dr. Apoloniusz Kodura. While in Poland, Professor Perakis and Dr. Kodura made a one-day trip to Gdansk, to visit some of the new coastal construction sites. Dr. Kodura is one of two Dekaban Fellows who will visit Ann Arbor in 2008.

**Other Activities**

**Former President of Poland Visits the College of Engineering**

In October of 2006, the former President of Poland Mr. Aleksander Kwaśniewski visited the University of Michigan at the invitation of the Center for European Studies - European Union Center (CES-EUC), Center for Russian and East European Studies (CREES), and the Office of the President. On October 25th Mr. Kwaśniewski presented a lecture entitled “The Theory and Practice of Citizenship: From the Local to Global.” The lecture took place in the auditorium of the U-M Rackham School of Graduate Studies, and was met with a very warm reception by the attendees. The following day Mr. Kwaśniewski visited the College of Engineering and met with David C. Munson, Jr., the Robert J. Vlasic Dean of Engineering; the Dekaban Program was represented at the meeting by Professor Radoslaw Michalowski.
College of Engineering Reception for International Fellows
Every year the College of Engineering honors the international visitors to CoE at a reception where collaborative programs with foreign universities are recognized. Last year’s reception took place on November 8, 2006 in the Johnson Rooms in the Robert H. Lurie Engineering Center. Both Dekaban Fellows, Dr. Anna Szerenos and Dr. Maciej Zasuwa, were present at the reception, joined by former Dekaban Fellow Dr. Arkadiusz Kobiera and Professor Michalowski who represented the Dekaban Program.

Professor Nowak Continues Collaboration with WUT
Professor Andrzej Nowak, U-M Professor Emeritus, remains active in his collaboration with WUT. In the spring semester of 2007 he was involved in co-teaching a course at WUT on Reliability of Structures. He also continues his collaborative work with a former Dekaban Fellow, Dr. Ewa Szeliga, regarding calibration of the design code for concrete structures. On May 29-30, Professor Nowak and WUT Vice-Rector Tadeusz Kulik served as co-chairs at a workshop on advances in engineering, held at WUT and covering nano-materials and technology, sensor technology, transportation engineering and structural engineering. Earlier in the year, both Professors Nowak and Kulik were awarded national titles of Professor by the President of Poland. Professor Nowak is planning a symposium on bridge engineering to be held in May of 2008 in Poland, with the participation of the Director of the Institute of Roads and Bridges at WUT, Professor Wojciech Radomski; WUT faculty member Professor Henryk Zobel; and Michigan faculty, Professors Radoslaw Michalowski and Jerry Lynch.

Getting Acquainted with American Traditions
Thanksgiving is a national holiday, deeply rooted in American tradition. In the picture below, the Dekaban Fellows help carve a 20-pound turkey, the traditional meal for Thanksgiving dinner.
Plans for 2007-2008

Dekaban Fellowship

*New Fellows Arrive in 2008*
Central to the Dekaban Program are the fellowships extended to the junior faculty at Warsaw University of Technology. The Program will host two Fellows in academic year 2007-08.

Dr. Pawel Olszewski arrived in Ann Arbor in January 2008 and will work with Professor Dennis Assanis in the Department of Mechanical Engineering.

![Dr. Pawel Olszewski](image1)

Dr. Pawel Olszewski

Dr. Apoloniusz Kodura will come to Ann Arbor in March 2008, and will collaborate with faculty members in the Department of Naval Architecture and Marine Engineering; he will stay in Michigan for 6 months.

![Dr. Apoloniusz Kodura](image2)

Dr. Apoloniusz Kodura

Plans have also been made for the May 2008 visit of one Senior Fellow, Professor Anna Sieminska-Lewandowska of the Department of Civil Engineering at the Warsaw University of Technology.
Appendices

Appendix A

Dekaban Fund Advisory Council and Program Committee

_Dekaban Fund Advisory Council_
Dr. Anna Bielinska
Research Investigator, University of Michigan School of Medicine
1652 Golden Lane
Ypsilanti, MI 48198
(734) 487-8623

Mr. Joe Bransky
3816 Autumn Drive
Huron, OH 44839

Dr. Karen Majewski
Executive Director, Polish American Historical Association
The Orchard Lake Schools
3535 Indian Trail
Orchard Lake, MI 48324
(248) 683-1743

The Honorable James Nowicki
8180 Anchor Bay Drive
Clay, MI 48001
(810) 794-9701

Mr. Richard Prusinski
1726 S. Hill Boulevard
Bloomfield Hills, MI 48304

Dr. Thaddeus C. Radzilowski, _Chair_
President, PIAST Institute
2926 Caniff Ave
Hamtramck, MI 48212
(313) 664-0321
(313) 664-0326 (fax)
**WUT Dekaban Program Committee**

*Warsaw University of Technology*
Professor Tadeusz Kulik, chair, *ex-officio*
Professor Maciej Jarosz
Professor Jerzy Kozak
Professor Wojciech Radomski
Professor Władysław Włoński
Professor Piotr Wolański

**Dekaban Program Coordinator (U-M College of Engineering)**
Professor Radoslaw L. Michalowski
Appendix B

Dekaban Fellow Profiles

Name: Anna Szerenos
2006-07 Dekaban Fellow

Institution: University of Michigan College of Engineering
Department of Industrial and Operations Engineering
(on leave from Warsaw University of Technology)

Currently: Faculty of Production Engineering
Warsaw University of Technology
86 Narbutta St.
02-524 Warsaw, Poland

Title: Visiting Assistant Research Scientist

Address: 1205 Beal Avenue
Ann Arbor, MI 48109

Phone: (734) 764-6473

Fax: (734) 764-3451

E-Mail: szerenos@umich.edu

Education: Warsaw University of Technology, MSc ’00, PhD ’05

Research Interests: Management (industry clusters, network, virtual, agile organizations), supply-chain management, procurement and outsourcing management, product life cycle management, innovation and technology transfer management

Dekaban Fund Activity: Dekaban Fellow, October 2006-April 2007
Dekaban Fellow Profiles

Name: Maciej Zasuwa
2006-07 Dekaban Fellow

Institution: University of Michigan College of Engineering
Department of Aerospace Engineering
(on leave from Warsaw University of Technology)

Currently:
Department of Automation and Aeronautical Systems
Institute of Aeronautics and Applied Mechanics
Warsaw University of Technology
24 Nowowiejska St.
00-665 Warsaw, Poland

Title: Visiting Assistant Research Scientist

Address: 1320 Beal Avenue
Ann Arbor, MI 48109

Phone: (734) 764-3310

E-Mail: mzasuwa@umich.edu

Education: Warsaw University of Technology, MSc ’00, PhD ’04

Research Interests: Control and navigation of unmanned aerial vehicles (UAV)
Visual techniques in navigation, image processing,
Integration of navigation systems

Dekaban Fund Activity: Dekaban Fellow October 2006-July 2007
Appendix C

Visitor Profiles

Name: Eugeniusz Molga

Institution: Department of Chemical and Process Engineering
Warsaw University of Technology

Title: Professor

Address: 1 Warynskiego St.
00-845 Warsaw, Poland

Phone: +(22) 660 62 93

Fax: +(22) 825 14 40

E-Mail: molga@ichip.pw.edu.pl

Education: Warsaw University of Technology, MSc ’73, PhD ’84

Research Interests: Chemical reaction engineering, safety of chemical reactors, neural networks in chemical engineering and biotechnology, process integration, multifunction reactors

Dekaban Fund Activity: Faculty visitor to U-M College of Engineering in May 2007; presented a lecture to students and faculty
Visitor Profiles

Name: Bogdan Rymsza

Institution: Department of Geotechnics and Underground Structures
Warsaw University of Technology

Title: Associate Professor

Address: Al. Armii Ludowej 16
00-637 Warsaw, Poland

Phone: +(22) 825 66 79

Fax: +(22) 825 89 46

E-Mail: B.Rymsza@il.pw.edu.pl

Education: Warsaw University of Technology, PhD ’63

Research Interests: Earth retaining structures, underground transportation infrastructure

Dekaban Fund Activity: Faculty visitor to the U-M College of Engineering in May 2007; presented a lecture to students and faculty in May 2007.
Visitor Profiles

Name: Andrzej Nowak
Professor Emeritus, University of Michigan

Institution: Currently at:
Department of Civil Engineering
University of Nebraska

Title: Robert W. Brightfelt Professor of Engineering

Address: W181 Nebraska Hall
Lincoln, NE 68588-0531

Phone: (402) 472-1376
Fax: (402) 472-8934
E-Mail: anowak2@unl.edu

Education: Warsaw University of Technology, MSc ’70, PhD ’75

Research Interests: Structural reliability; bridge structures; code optimization; human error

Dekaban Fund Activity: Faculty visitor to WUT; taught a course on Reliability of Structures at WUT in 2006.
Visitor Profiles

Name: A.N. (Tassos) Perakis, PhD

Institution: Department of Naval Architecture and Marine Engineering
University of Michigan, Ann Arbor

Title: Associate Professor

Address: Room 213, NA&ME Building
North Campus
Ann Arbor MI 48109

Phone: (734) -764-3723
Fax: (764)-936-8820
E-Mail: tassos@umich.edu

Education: Diploma, National Technical University of Athens, Naval
Architecture, Marine and Mechanical Engineering, 1977
Massachusetts Institute of Technology, SM Ocean Engineering
’80, SM Operations Research ’80, MBA ’82, PhD ’82

Research Interests: Probabilistic optimization (primarily marine systems),
systems and structural reliability, transportation scheduling
and logistics, engineering-economic-environmental
analyses, energy policy and efficiency optimization

Dekaban Fund Activity: Faculty visitor to WUT, May 9-13, 2007; presented a
seminar at the Department of Environmental Engineering at
WUT; will serve as host for one of 2008 Dekaban Fellows
Visitor Profiles

Name: Radoslaw L. Michalowski

Institution: University of Michigan
Department of Civil and Environmental Engineering

Title: Professor

Address: 2364 G. G. Brown Building
Ann Arbor, MI 48109-2125

Phone: (734) 763-2146

Fax: (734) 764-4292

E-Mail: rlmich@umich.edu

Education: Institute of Fundamental Technological Research, Warsaw, and Polytechnic University Poznan, PhD ’80
Polytechnic University Poznan, MSc ’74,


Dekaban Fund Activity: Dekaban Program coordinator; visited WUT March 2007; held meetings with the WUT Dekaban Committee and with prospective Dekaban Fellows and visitors
Appendix D

Dekaban Fund Endowment Agreement

The Dr. Anatole S. and Pamela D. Dekaban Fund

Establishment of the Fund

Anatole S. and Pamela D. Dekaban ("donors") hereby pledge and promise to give an initial gift of $100,000 to the Regents of the University of Michigan to establish an endowment fund for the benefit of the College of Engineering. It is the intent of the donors to make additional gifts to increase the principal amount of the fund to $500,000, including a gift of real property acceptable to the University's Board of Regents. The Fund is to be named for the donors, the Dr. Anatole S. and Pamela D. Dekaban Fund. Further, it is the intent of the donors that the Regents accept future gifts to enhance this fund.

Purpose of the Dekaban Fund

It is the wish and goal of the donors to encourage the exchange of technical knowledge between advanced academic professionals in various fields of engineering at the Warsaw University of Technology and the University of Michigan. To help provide support for such an exchange, the wish of the donors is that the annual distributions from the Fund, in accordance with the University of Michigan's endowment distribution policy, be made available at the direction of the Dean of the College of Engineering to be applied for such exchanges of faculty, as provided herein.

Exchange Program

At the discretion and control of the College of Engineering, said annual distributions from the Dekaban Fund may be used for exchanges of any of the following ranks of faculty, namely:

(a) Two junior faculty from Warsaw University of Technology (with adequate English) to the University of Michigan College of Engineering annually, but not concurrently, for four to five months each person;

(b) One or two senior faculty from Warsaw University of Technology to College of Engineering annually for two weeks;

(c) Two senior faculty from College of Engineering to Warsaw University of Technology annually, and concurrently or individually, each year for three weeks each;

(d) One senior College of Engineering faculty to Warsaw University of Technology for a sabbatical term with the College striving to use its best effort to achieve three such faculty sabbatical terms in the consecutive five years following the full funding of the Dekaban Fund at the level of $500,000 for the endowment principal sum.
Depending on the level of annual distribution, the number of visitors as described in (a), (b) or (c) above can be appropriately increased. If by the end of any fiscal year, not all available monies have been disbursed, then 50% of the remaining sum should be added to the principal of the fund and 50% prorated to the next fiscal year.

If in the future, the Dean of the College of Engineering and the Prorector of Warsaw University of Technology jointly determine that different numbers and categories of exchanges other than those listed under (a), (b), (c) and (d) would be more appropriate, such a change can be made through Addendum to the Agreement and by asking the donors or their designee for endorsement.

Implementation and Administration

The Dean of the College of Engineering hereby agrees to appoint a faculty committee to administer the application of the distributions for the purposes described herein; and, in consultation with Warsaw University of Technology Committee Chairman (ex-officio Prorector), to review applicants, nominees, and candidates for exchange; and recommend same for selection at the sole discretion and determination of the Dean of the College, consistent with the University of Michigan policies, practices, and procedures for selection and appointment of faculty.

Moreover, at the discretion of the Dean of the College of Engineering, University of Michigan faculty visiting the Warsaw University may be allocated a portion of the Dekaban Fund's annual distributions to make available to those attending lectures, seminars, and other presentations by University of Michigan faculty, books, periodicals and other information technology relevant to said presentations but not exceeding 5% of the annual distribution.

The Associate Dean for Graduate Studies and Research for the College, in charge of the international programs of the College, will be an ex officio member of the committee and be responsible for providing donors or their designated heirs and their Advisory Council (to be established by the donors) with an annual report of program activities and a brief financial statement. The donors or their designee will acknowledge in writing the receipt of the financial report.

Inauguration of Fund

Donors intend to give an additional $20,000 that will be fully expendable at the discretion of the Dean of the College of Engineering, and not intended to enlarge the principal of the Dekaban Endowment Fund, to enable the College of Engineering to inaugurate exchanges, if administratively feasible, beginning in the academic year, 1993-94. In such event, the Dean or his delegate of senior rank will travel to Warsaw University of Technology to inaugurate the program.
University of Michigan Regents Gifts Policy

It is understood by the Donors undersigned that in accordance with Regents' Bylaws Section 3.05, all gifts are accepted by the University subject to the general policy of the Board that the wishes of donors with respect to their gifts, shall be loyally observed so long as, in the opinion of the Board, such wishes do not conflict with the proper administration of the University under changes that may develop in the course of time.

Governing Law and Venue

It is further understood that any disputes relating to the construction, interpretation, or enforcement of this agreement shall be governed by the law of the State of Michigan and shall be heard, decided, and resolved in Michigan.

IN WITNESS WHEREOF, the donors and the University by its duly authorized officer, have caused this agreement to be executed on or as of the ___ day of ___ 1993.

s/ Anatole S. Dekaban, M.D., Ph.D.

Pamela D. Dekaban

THE COLLEGE OF ENGINEERING

By Peter M. Banks, Its Dean

THE REGENTS OF THE UNIVERSITY OF MICHIGAN

By Gilbert R. Whitaker, Its Provost and Vice President for Academic Affairs