

**Keleti Karoly Faculty of Economics****Institute of Management and Organisation****Address: Népszínház u. 8, H-1081 Budapest, Hungary****Tel.: +36-1-666-5317****Fax: +36-1-666-5488****E-mail: [kadocsa.gyorgy@kgk.bmf.hu](mailto:kadocsa.gyorgy@kgk.bmf.hu)****Website: <http://www.kgk.bmf.hu/intezet/szvi>****Head of Institute: György Kadocsa****1 Introduction**

The Institute of Management and Organisation (IMO/SZVI) functioned as a Chair subsequently to integration. Since the foundation of Bánki Donát College of Technology in 1969 it has been a Chair, a department managing majors, which chronologically include the following majors: Company Organisation, System Organisation Organization and Information Technology as well as Industrial Engineering. As for the Major of Mechanical Engineering, of late, the Institute has been involved in teaching subjects related to Economics, Business Studies, Organisation and Management.

Changes occurring in social life and economy (a shift towards market economy, a novel approach dominated by a sense of ownership) set a new task for the lecturers of the institute. Integrating business culture and management techniques into skills acquired in general education therefore was specifically emphasised by the Institute. During the years following the integration of the three colleges opportunities for cultivating management and organisation sciences have become wider, which the Institute is intent on taking advantage of.

**2 Educational Profile**

The basic task of the Institute of Management and Organisation is to participate in the training at majors Industrial Engineering, Business Management, Engineer Management, and, furthermore, to teach all students of the College certain subjects related to Economics, Management and Organisation belonging to the profile of the Institute. In addition to tasks connected to teaching, the duties of the Institute involve carrying out scientific research related to the special fields of study in question as well as updating curricula and teaching materials. The

## Institute of Management and Organisation

Institute is in charge of providing and improving high quality training in the subject Entrepreneurial Economics at all faculties, majors and specialisation fields at the College.

The Institute is responsible for the following specialisation fields:

Industrial Engineering major	Full-Time Course, Organisation and Information Technology Full-Time, Controlling Correspondence Course, Automobile Technology
Business Management major	Enterprise Organisation
Manager Engineer major	Organiser

Presently the achievements of the Institute can be summarised, as follows:

- The number of registered students is high, the interest shown in the training remains significant
- Subjects included in training cover various branches of science, highly qualified lecturing staff guarantees for the Institute a substantive universal intellectual capital
- A comparatively great number of papers are presented at National Students' Conferences annually.
- Our specialisation fields enjoy a good reputation, students having graduated have excellent chances to get employed, the standards of their professional skills are approved by the labour market
- The tradition of managing majors dates back to 30 years ago, respecting tradition and well-experienced colleagues are paid a special tribute.
- Further training provided for specialised engineers has been going on for more than 25 years.
- Compared to the average age of lecturers with the College, the Institute employs relatively young professionals
- As for their approaches concerning professional and educational fields the staff are flexible and open to novelties
- Excellent working atmosphere and co-operation are maintained.
- It is remarkable that members of the staff are frequently commissioned to render services for the spheres of economy and industry.
- Students are provided with excellent information technology equipment and computer infrastructure background meeting the today's technical and market requirements at a high level (2 computer rooms, 1 management special laboratory)

Our main future activities are aimed at the following achievements:

- To provide the basic function of the Institute and to enhance the features of the lecturing and research centre represented by the Institute.
- A dedicated participation in fulfilling tasks applicable to tasks arising from development, operative action and elaborating conceptions and strategies.
- To maintain and expand the professional relations with domestic and foreign research centres and institutes.
- To concentrate individual research projects and select topics, to offer more appropriate conditions to individual research done by lecturers.
- To increase publication activity.
- To achieve involvement in obtaining various grants and supports, to win tenders in the state sector.
- To motivate lecturers to take part in national and international conferences.
- To build up contacts with private enterprises and business investment and development organisations.
- To reinforce co-operation between departments and organisational units in the field of research and development.
- To retain and widen lecturing and research sources of the Institute in order that new tasks can be fulfilled.
- To encourage younger staff members to gain scientific degrees, to motivate them to master foreign languages increasingly.
- To obtain sources to finance salaries and operation costs (competitions, commissions from the sphere of industry, to increase the number of paying students involved in training).
- To maintain a well-balanced pleasant atmosphere for staff.

### **3 Research and Scientific Activity**

The main research trend at Institute of Management and Organisation is centred on the development and organisation of small and medium enterprises.

Since the early 1990's the lecturing staff and individual lecturers of Eastern and Central European institutions of higher education – amongst them the Institute of Management and Organisation – have been dealing with the utmost current issues of transition, development, entrepreneurial sphere and management in order that experience gained by the developed world, chiefly by the European Union can be utilised. In this activity a recurrent and primary importance is attributed to the research and development of small and medium enterprises.

Triggered by the initiative of the researchers of the Institute of Management and Organisation, Keleti Károly Faculty of Economics was the first to organise a Management, Enterprise and Benchmarking (MEB) Conference in Budapest in the year 2003, as a result of which participants announced their wish to continue the process of co-operation and to expand its professional scope on a wide scale.

The history of MEB conferences is represented by the figures shown in the table below:

Year	Participants	Presentations	Foreign Presenters	Countries
2003	65	31	12	4
2004	55	25	15	5
2005	52	27	14	5
2006	56	32	18	7

As a result of careful preparations carried out for several years, by the end of 2004 the Institute of Management and Organisation together with Central and Eastern European universities, which have high ranking in doing research on the themes listed below, had succeeded in concluding an agreement on cooperation in the field of joint RD activities to be accomplished in the field of study of Management, small and medium size enterprise research, development and publication activities.

The first group of those involved in the co-operation as partner founders is, as follows:

Wirtschaftsuniversität Wien, Institut für Betriebswirtschaftslehre der KMU  
MER, Evrocenter, Family Business Institute and MER Publishing in Maribor,  
Matej Bel University in Banska Bistrica, Faculty of Economics,  
Budapest Corvinus University, Faculty of Economics,  
Pécs University of Sciences  
Budapest Polytechnic, Institute of Management and Organisation

The aim of co-operation is to increase standards represented by the partners in respect of scientific, technical, economic, R and D activities, to keep up with steadily changing international professional standards, to adopt and shape them.

To achieve this goal the partners are supposed to harmonise their R&D activities, to share experience regularly and to take advantage of effects of synergism.

The contents of co-operation:

Annually at least one international conference is to be organised, at which partners report on progress made in R&D activities previously carried out.

To edit and issue special publication on the conference of MEB profile on the basis of reports handed in by research workshops.

To edit professional publications, on individual occasions, to publish outstanding achievements resulting from joint R&D activities.

Partners offer free access to results belonging to the specified field of study so as that those can be applied in higher education as well (e.g. by translating course books, articles and professional studies published in separate volumes).

Joint application for grants in the field of R&D offered by domestic and EU competitions.

Visits organised for researchers at research workshops with the aim of sharing professional experience.

Student exchange programmes in the framework of educational and research programmes linked to the specified field of study.

The Institute of Management and Organisation shall be appointed the centre for co-ordinating co-operation during 4 years following the agreement.

### **Research Environment and Methodology**

Our experience gained in both Hungary and in the neighbouring countries in the early 1990's confirmed our concept, according to which a great emphasis is to be laid on research and development in the sphere of enterprises. Thus the Institute of Management and Organisation has incorporated enterprises, and emphatically small and medium enterprises in its research programme.

In the framework of R&D activities launched in 1993 we separately examined the place and role of Controlling in enterprises and we also effectively contributed to putting the outcome of the research to practical use.

While the research was in progress we used a wide scale of methods. Selection from methods available was greatly determined by circumstances and by the fact that external financial sources were scarce or not at all available.

Selecting and specifying study samples progressed accordingly. In this respect, however, we benefited from the fact that our students come from various parts of the country therefore their circle of acquaintances represent different areas on a nationwide scale, thus allowing the research team to cover the whole of the country – at least geographically – by selecting and studying enterprises from all over the country.

The following activities and results represent the ongoing research programme at the Institute of Management and Organisation:

Creating and introducing new subjects in training

Research devoted to studying technical literature

Institute of Management and Organisation

Consulting activities

Making survey in

Issuing and preparing publications

In 1994 the Institute introduced the subjects 'Enterprise Organisation' and 'Controlling' at the legal predecessor of the present Budapest Tech, formerly called Bánki Donát Polytechnic at the major Organisation and Information Technology, which existed as an individual major. Within 2 years, in both subjects, authors employed with the Institute published special books on the subjects, which has been in use ever since.

Beyond domestic libraries offering a relatively poor collection in the related subject, the Library of Vienna University of Economics as well as periodicals and materials published abroad served as a source for studying technical literature. It could be ascertained that in domestic entrepreneurial environment the outcome of American research was far less easily applicable than that of publications issued in neighbouring Austria or Germany. We are greatly indebted to the Austrian Institute for Economic Development based in Vienna for their assistance in providing professional publications in German and Hungarian.

Similarly, organised Consulting activities were begun in 1994, when the Germany-based RKW (Rationalisierungskuratorium der Deutschen Wirtschaft) appeared in Hungary. Several members of the research team operating at the Institute of Management and Organisation together joined the programmes of RKW and we continued Consulting activities that took place nationwide for several years. In the course of rendering these Consulting services we gained plenty of experience, which we presented at various international and national forums.

Up to now we have also made a great number of surveys on enterprises. We made and led these surveys together with colleagues participating in research. Parallel to training programmes, we also involved students in the research programme by determining their practical tasks to be carried out during their industrial placement in accordance with the specified aspect to be examined at an enterprise.

Inasmuch as over 100 students were involved annually in Enterprise Organisation training, a huge number of surveys on enterprises were available for research purposes.

Surveys were completed by subsequent quick tests. The essence of this method is, as follows: the company surveyed is requested to fill in a questionnaire exploring the application of organisation and management methods. A brief consultation with the leader of the enterprise, regarding answers given, follows.

For the past 4 years, as many as 400 enterprises have been examined on the basis of interviews and studies, and another 200 were surveyed by means of quick tests.

Our research activities are appropriately represented by publications in the subject at international forums, some, but not all of the subjects of which are included in the list below:

- The Operation of Small and Medium-size Enterprises Research Programme at Budapest Tech.
- Transillumination and Business Evaluation in Small and Medium-Size Enterprises.
- The Role of Controlling in Small and Medium-Size Enterprise Management.
- Crisis Management and Techniques for Handling Crises in Hungary.
- Preventing Crisis and Crisis Management Techniques in Hungary.
- Experience and Recent Developments in Alteration Management in Hungary.
- The Position of Family Enterprises in Hungary.
- Competitiveness of Family Enterprises in Hungary.
- Controlling, Outsourcing, Global Competitiveness.
- Globalisation and the Competitiveness of Small and Medium Enterprises.

According to the sense, this list is completed by a stipulation of individual publications by researchers in the subjects specified, which are incorporated in the Appendix of the present report.

One of the major tendencies of research is to explore how the influence of globalisation on the competitiveness of a Small or Medium Enterprise shows itself in the alterations occurring in the management, organisation and scheme of an enterprise. Out of the factors affecting the viability and competitiveness we set a high store on applying organisational, managerial methods, we scrutinise application possibilities of up-to-date techniques in the sphere of Small and Medium Enterprise.

The composition of selected enterprises being surveyed nearly perfectly matches the national standards in terms of activities measured on a nationwide scale. It is to be noted that currently we are not examining any agricultural enterprises. The research is still in progress, now we are making preparations for analysing the competitiveness of small enterprises, relying upon novel surveys, which are characterised by scientific competence.

The members of the Small and Medium Enterprise Research Team are, as follows:

Mr. László Borbás, Mr. Sándor Dobi, Ms. Anna Francsovcics, Mr. György Kadocsa (project manager), Mr. László Sütő, Mr. György Szabó, Ms. Ágnes Tibor

Apart from research, scientific studies are going on in other related fields, as well, which are highlighted by the names of the Institute's lecturers. Hereafter follows a brief summary of these scientific studies.

**Dr. Mária Bencsik**

The theme of the research: The study of novel phenomena on money markets, with special regard to the analysis of 'emerging markets' and the features of domestic money markets.

The aim of research: To utilise analyses and conclusions drawn in connection to money markets for education purposes, by integrating them in teaching aids and by incorporating them in the specific chapters of the course book 'Finances'. Furthermore, to attract the attention of students to these topics and also to encourage them to get involved in work carried out in the Scientific Students' Association or to motivate them to select aspects of the above topic for their theses. The researcher regularly attends Scientific Sessions and publishes her results.

Fields of study during the past 4 years:

Habits of saving and investment

Investment funds

Risk-bearing capital

Derivatives, the study of profit transactions

Further research objectives being elaborated: the analysis of profit transactions on international and domestic markets

**Dr. Sándor Dobi**

His individual field of study is: surveying efficiency-increasing potentials lying in Japanese type KAIZEN management and chances for adaptation.

KAIZEN, which originates in Japanese history, philosophy and social ideological and moral systems, is based upon the conviction widespread in Japan and deeply rooted in Japanese civilization according to which everyone, everywhere, every single day is supposed to do their best to improve just a little bit today's living and working conditions (which, certainly, can never ever be regarded as perfect). This has led Japanese company management to think in terms of less costly and less risky, but a set of uninterruptedly proceeding innovations, compared to western models, whose philosophy is best described by the principle: 'A single huge investment guarantees innovation in every 10 to 20 years.' Among others, specifically this very approach (and certainly a willing reaction, commitment as well as a hardworking attitude on behalf of Japanese masses), and techniques having been developed by TOYOTA for several decades, described by the terms and mottos 'pulling technology', 'stock management just in time', 'drastic cut on



the extension of economical serial production', and 'TOYOTA Production System' integrating various other features, guaranteed that Japanese automobile manufacturing (and also other industries) had outstripped their competitors in the US and Western Europe, as well. This has caused products, capital, technology and company management culture export to increase dramatically (sometimes to expand aggressively), however, competitors worldwide show willingness to adapt useful innovations.

The method and scope of research:

- Factory visits, analyses.
- Participation in symposia and conferences, attending further training.
- KAIZEN training being run thanks to joint efforts on behalf of the Japanese and Hungarian governments.
- Processing the results technical literature related to the subject.
- Channelling the knowledge of students with work experience, attending correspondence courses, motivating students and systemizing experience.

Our study is aimed at exploring domestic enterprises which apply the elements of KAIZEN management system (focusing on automobile and automobile parts industries) and analysing their experience in order that experience obtained by large companies could be made use of in the sphere of domestic small and medium enterprises.

Conclusion of the study so far:

- Adopting Japanese production cultures whilst ignoring local features, frequently has more disadvantages than advantages.
- Introducing the technology and management systems concerned above ought to be preceded by general and production analysis of the receiver and its environment, also related to company culture, and strategies have to be selected on the basis of the outcome of these analyses.
- To carefully and efficiently adapt these management systems and their elements in Hungary, it is necessary to continue further pragmatic research activities in order that necessary company environment can be created and culture analysis and fine-tuning can be handled.

Further steps may include involving more study results, further factory visits and analyses. A systematic collection of technical literature published in English and Hungarian is to be created, it should be processed, course books ought to be compiled, new subjects are to be developed, specific courses should be launched, if viable.

One of the aspects of the research targets at familiarising leaders of Small and Medium Enterprise Sphere with the system and also at establishing contacts

between enterprises wishing to introduce this system, and, upon request, at making this network institutional.

**Dr. Enyedi Miklósné**

Her field of research: Decision Making and Decision Theory. Decision Making processes can be approached from many aspects, the research primarily concentrates on the role of decisions in managerial and control processes. Besides considering multifold approaches to decision making, one of the fields of study is aimed at exploring the internal logic of decisions (congruous choice, keeping to rules) and the ways it affects the operation of business organisations.

The questions of the methodology of decision-making processes are analysed regarding both decision-making preparations (some areas in operation research) and execution as well as control (net planning).

Conclusion: Theoretically, the starting point for describing problems and decision-making situations and applying adequate approaches and for finding appropriate solutions is that decisions are created in a well-organised world. The World, however, does not really very well match the criterion of this order, thus the concept of order is revised, and this makes decision making face challenges. As for decisions, the question of responsibility and of involving those concerned in the process of decision making more and more often arises. In our world fighting a crisis of values, ethic considerations are worth their place in decision making processes.

These research results are successfully applied at college lectures, and contribute to students' participation in the work done at Students' Scientific Association and also help in consulting students on the achievements of their theses.

In respect of company leadership decisions, there has been an intense shift from production to sales recently. The importance of appropriate market decisions and of marketing are more and more widely acknowledged. Therefore, in the future, the researcher is planning to make studies of specific characteristics and features of marketing decisions.

**Dr. Pál Michelberger**

Theme: Creating and implementing Information Security Control Systems relying on experience accumulated in Quality and Environment Control Systems.

Research Method: Processing technical literature available, examining case studies reported at forums of the Seven Seals Information Security Association, analysing specific instances of introductions, studying the potential applications of standardized packages.

The Scope of Research: Organisations in Hungary installing Information Security Systems.

Conclusions so far: Engineered in Britain, the standardized package BS 7799, which has been circulated internationally ever since, is meant to create Information Security Systems, evaluate them and provide certification facilities. It is employed by an ever-increasing number of business organisations. Security requirements and adequate measures can be optionally selected, in harmony with individual business objectives and organisation strategies, which is a novel feature compared to other regulatory systems.

The standardised package is still being improved. Via examining its introduction a set of similarities to creating standardised Quality and Environment Control systems can be discovered. It means a special challenge to companies to create these audited management systems smoothly, without causing difficulties to the company organisation.

The study deals with the importance of the package, its predictable alterations and a boom on the market, also considering its appearance in higher education.

Results: Regulating Information Technology Security in the framework of a control system.

Further steps: maintaining relations with the Seven Seals Information Security Association, attending their professional forums, consulting students working on their theses or papers to be presented at Students' Scientific Conferences.

**Dr. Ágnes Szeghegyi**

The Field of Research: the theory of knowledge-based systems and their practical applications.

The research is going on in co-operation with the research team of John von Neumann Faculty of Information Technology.

In the knowledge based systems, expert systems information of '*knowledge-type*' and '*data-type*' are stored. Such information can be able to represent the '*model*' of some physical or others system. Furthermore, strategies for controlling such systems can be represented in similar manner. The most traditional knowledge based systems are constructed on the basis of the classic binary '*crisp*' logic the application of which can be implemented by '*if...then*' rules. The crisp logic based systems have significant difficulties in dealing with the presence of various uncertainties and contradictions that may be present in the real world or in the '*rules*' available for tackling the real world's problems. *Soft computing* offers alternative ways of information representation of the '*analytical physical models*' of the traditional '*hard computing*' in data and knowledge representation. Their ability for representing and refining information available e.g. in common human languages in a mathematically rigorous manner also is a great advantage. Furthermore, they also offer methods for acquiring information via machine learning if no '*a priori*' knowledge is available. For this purpose coordinated co-

operation of diverse components as artificial neural networks, fuzzy rule bases and inference systems and learning/tuning methods is necessary.

The mathematical foundations of the operation soft computing tools go back to 1900, namely to the 13<sup>th</sup> conjecture by Hilbert according to which 'there exist continuous multi-variable functions, which cannot be decomposed as the finite superposition of continuous functions of less variables', and to the rebuttal of this statement obtained via a constructive proof by Kolmogorov in 1957. De Figueiredo showed that Kolmogorov's theorem could be generalized for *multilayer feedforward neural networks*, and so, these could be considered as universal approximators in 1980. From the late 80s several authors proved that *different types of neural networks possessed the universal approximation property*. Similar results have been established from the early 90s in fuzzy theory claiming that *different fuzzy reasoning methods are capable to approximate arbitrary continuous function on a compact domain with any specified accuracy*.

In spite of their universality the application of soft computing methods has various practical difficulties, too:

- a) normally the approximating models have exponential complexity in terms of the number of components, i.e. the number of components grows exponentially as the approximation error tends to zero.
- b) If the number of the components is bounded, the resulting set of models is nowhere dense in the space of approximated functions, i.e. this is an 'almost discrete' set.

In spite of the above 'exact mathematical difficulties' soft computing was found to be powerful tool of information technology in practical applications. For instance for solving typical problem classes special, particular network structures can be constructed in which the scalability problems reveal themselves in the 'a priori' unknown number of the necessary nodes within the essentially same structure. The appropriate 'size' of the network individually depends on the particular task to be solved. In the case of too big necessary networks tuning of the huge amount of free parameters (i.e. the learning process) becomes slow and clumsy. This is especially significant disadvantage when the dynamics of the represented physical system is not time-invariant. The same can be stated for the necessary number of the fuzzy rules in a fuzzy system.

In our view the possible roots of the scalability problems in soft computing root in the conditions as follows. The basic concept of the approximation theory concentrates on continuous functions. This is a very wide set of often 'extreme' functions. (It is easy to construct a function that everywhere is continuous in  $[0,1]$  but certainly not differentiable in infinite many points of countable number. These points are 'evenly distributed' in the  $[0,1]$  interval. In the practice the far more restricted smooth functions with certain separated singular points may be useful generally. With other words the set of continuous functions is too complicated and

too general for modelling entities occurring in real world applications. The other problem originates from the general endeavor for constructing complete and permanent models conveying full information on the system to be modelled.

In the special approach developed at Budapest Tech the idea of developing/learning 'complete' and 'permanent' models was given up. The isolated nature of certain drastic nonlinearities is supposed to reveal itself on a generally 'smooth' basis. The method tries to establish and maintain the observed functional relationship between the excitation and the response obtained due to the excitation. It is not supposed that each significant degree of freedom in strong dynamic coupling with the considered ones is observed or 'modelled'. It is not supposed that the controller has information on the external dynamic forces acting on the controlled system. It is supposed that the coupled sub-systems' effects on the observed ones reveal themselves in the variation of the observable functional relationship between the observed reaction and that part of the excitation that is known by the controller. The uniform procedures and structures are obtained from simple algebraic structures. It was shown that the set of possible applications of this method is quite wide from practical point of view.

#### **R&D Projects**

- 'Novel robot control strategies based on uniform structures and procedures' (2001-2004) (Participant);
- 'Navigation models and algorithms based on hybrid and soft computing methodologies'. OTKA T035190 (2001-2004) (Participant);
- 'Application of fuzzy operators based methods in intelligent information systems of vehicles' OTKA (2005-2008) (Principal investigator);

#### **Dr. Ágnes Tibor**

Presently a senior lecturer, and simultaneously a graduate student majoring in Mental Hygiene at Károli Gáspár Protestant University. Her main field of research focuses on selecting social competences, which can be improved after puberty and the methods that serve this purpose.

During her research she uses three methods founded on one another.

She searches for social competence training packages already existing in various foreign countries, which are meant to develop teenagers above the age of 16, as well as theories attached to them. After collecting them she makes comparisons. Materials are subject to content and structural analysis in order that social competence improving trainings, which are meant to develop young people of the above mentioned age, can be engineered to perfection. These trainings have been individually developed by the researcher and have been partially in use, and are to be introduced in Hungary. The researcher has been improving trainings, which have been going on since 2004, relying on feedback from participants and remarks and comments on behalf of specialists engaged in the same research field.

The research has three main objectives:

- To apply newly developed trainings among young professionals starting their career.
- To develop social competence developing programmes, which can be used individually by young people aged 16 to 20.
- To develop social competence programmes and to supply them with course books for future facilitators, which can be applied by the trained moderator (teacher/trainer), who is psychologically suitable for the task, so that they can be used to develop the social competence of students.

The scope of research:

The research aims at collecting materials and theories on which they are based, meant to train different target groups in countries with different cultures. So far materials from Great Britain, the USA, Canada and Austria have been gathered, and the researcher has made contact with the leader of a Hungary-based enterprise, which was created for the same purposes.

Conclusions so far in brief:

Each of the psychosocial stages established by Erikson can be developed until the end of young age to a certain extent (which may wildly differ). Certainly, it can merely be done if appropriate environment, suitable methods, suitable leader, suitable number of participants given in groups of the same heterogeneity.

Results:

The idea of the research was born due to the fact that at a training whose aim was to prepare unemployed people to start enterprises on their own, it was realised that certain competences could be developed even in the case of adults – even this stratum of society proved to be capable of self-development and self-management – considering the fact they have no other choice to make a living. However, and that was the other conclusion, provided they acquire the skills and abilities to take care of themselves and to reach the appropriate standards of living, they are less likely to get unemployed. Having relied on experience of a primary school fellow teacher, the researcher selected those competences that a young person aged 14 to 16 can develop on his or her own using the adequate textbook, the book ‘Being a Teenager’ has been published, 5000 copies have been purchased. Since then they have organised several trainings for secondary school pupils, university and college student, as well.

Further developments being made presently:

Perfecting trainings called ‘Self-Knowledge’ and ‘Self-Management’ (II) for graduate students attending the Faculty of Economics Budapest Polytechnic.

Launching trainings called 'Self-Knowledge' and 'Self-Management' (I) as special courses at Budapest Polytechnic.

The summary and description of the project in the form of a diploma work.

Compiling a manual on self-development and self-management for university and college students.

Her Theme in the framework of Small and Medium Enterprise Research:

How college and university students view the possibilities to start and maintain a small enterprise on their own, how much they find this idea attractive, how they do it or how would they do it, whether they feel they are forced to turn to it or they look upon it as a chance for their future.

## **Publications**

### **Scientific Monographs, Book Excerpts**

József K. Tar, Imre J. Rudas, Ágnes Szeghegyi, Krzysztof Kozłowski: Novel Adaptive Control of Partially Modeled Dynamic Systems, Lecture Notes in Control and Information Sciences, Springer Berlin/Heidelberg, Robot Motion and Control: Recent Development, Part II - Control and Mechanical Systems, Ed. Krzysztof Kozłowski, Volume 335 / 2006, pp. 99-111, ISBN: 1-84628-404-X

Francsovcics A., Kadocsa Gy.: Vállalati gazdaságtan, AMICUS, 2001 (ISBN 963 8026 07 3)

Kadocsa Gy.: Vállalkozások szervezése, AMICUS, 2002 (ISBN 963 8026 01 5)

Kadocsa Gy. könyvrészlet, szerk. Janko Belak: Integralni management in razvoj podjetja c. könyvében: Management sprememb in sinergija: primer madzarskega podjetja, MER-Evrocenter, Maribor 2003

Kadocsa Gy.: Menedzsment mérnöki alapismeretek, AMICUS, 2004, (ISBN 963 8026 01 6)

### **Peer reviewed Scientific Publications**

#### **Pál Michelberger**

Some Problems of Introducing Integrated Business Management Information System, Külkereskedelmi Főiskolai Füzetek 12, pp. 47-54, (BGF KKF Szakmai Füzetek) 2003, ISSN 1218-3547

Evaluation of Procured Element of Information Systems on the Basis of Standards and Recommendations for Information Technology, Informatika – GDF Közleményei, Vol. 7, No. 3, pp. 36-42, July 2004, ISSN 1419-2527

#### **Ágnes Szeghegyi**

József K. Tar, Imre J. Rudas, Ágnes Szeghegyi, Krzysztof Kozłowski: Non-Conventional Processing of Noisy Signal in the Adaptive Control of Hydraulic

Differential Servo Cylinders. in the Special Issue on Signal Processing, IEEE Transactions on Instrumentation and Measurement, Vol. 54, No. 6, pp. 2176-2179, December 2005, ISSN 0018-9456

I. J. Rudas, J. K. Tar, J. F. Bitó, Á. Szeghegyi, K. Kozłowski: A Combined Solution of the Inverse Kinematic Task in the Vicinity of the Singularities, Journal of Advanced Computational Intelligence and Intelligent Informatics, Vol. 8, No. 5, 2004, pp. 514-522

**Papers in conference proceedings:**

**Mária Bencsik**

Megtakarítási és befektetési szokások vizsgálata és a várható tendenciák a magyar tőkepiacokon. MEB. Nemzetközi Konferencia Budapest, 2003. jún. 20-21. 9.o-18.o.

A befektetési alapok szerepe a tőkepiacon és a hazai piacok által kínált lehetőségek. MEB. Nemzetközi Konferencia Budapest 2004. jún.25-26. 259.o-270.o.

A kockázati tőke szerepe a tőkepiacokon és a Magyarországi jellemzők. MEB. Nemzetközi Konferencia Budapest 2005. jún.24-25. 249.o-256.o.

A derivatívák, származékos ügyletek a pénzügyi piacokon. MEB. Nemzetközi Konferencia Budapest 2006.

**Enyedi Miklósné**

A döntéshozatal logikája, MEB Nemzetközi Konferencia, 2002.

Az etika szerepe a döntéshozatalban, MEB Nemzetközi konferencia, 2004.

Marketingdöntések jellemző vonásai, MEB Nemzetközi Konferencia, 2006.

**Kadocsa György**

Változás menedzsment tapasztalatok és aktualitások Magyarországon I.Országos Tanácsadói Konferencia Budapest, 2002. márc. 4-5.

Rolle der Familienunternehmen in der ungarischen Landwirtschaft MER Symposium 2002 Maribor 2002. 05. 09-11.

Lage der Familienunternehmen in Ungarn MER Symposium 2003 Maribor, 2003. 05. 08-10.

Forschung, Förderung, Unterricht der Familienunternehmen in Ungarn Int. Konf. on Management, Enterprise and Benchmarking Budapest, 2003. 06. 20-21.

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