

CURRICULUM VITAE

Last Name: MAMALYGA
First Name: Volodymyr (Vladimir)
Citizenship: UKRAINE
Civil status: Married

Position:

- **Director of Private company “Electrical Mechanics”**
- **Executive Director of All-Ukrainian public organization “Energy Auditors & Energy managers Supreme Council of Ukraine”**
- **Professor of National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”**

Company name: Private Company “Electrical Mechanics”.

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CAREER SUMMARY:

- **Director & Owner of Private Company “Electrical Mechanics” (energy, environment and financial consulting; performance contracting; energy audit; energy management)**
- **Executive director of All-Ukrainian public organization “Energy Auditors & Energy managers Supreme Council of Ukraine”**
- **Consultant of Ukrainian Parliament in sphere of energy saving**
- **Ph. D., Professor of Kiev Polytechnic Institute**
- **Executive Secretary of Certification Council of Ministry of Education of Ukraine (licensing, accreditation of high educational organization in energetic, electromechanical and electrical engineering)**
- **Science Secretary of Science-Expert Council (Ministry of Education of Ukraine) in electromechanical and electrical engineering**
- **Chief of experts command of the Council of Central energy audit group (State Committee of Ukraine of Energy Saving) etc.**

SUMMARY OF QUALIFICATIONS:

Energy & environment management; Energy & environment audit; Project management; Business Planning (design and calculation of economical and technical aspects of investment projects); Management of self-financial organization; Scientific research and practice in energy saving and multi-motor electric drive systems; Public relations (including articles in central Ukrainian magazines & TV); Teaching.

AREAS OF EXPERTISE

1) Energy Saving (technical, financial and managerial aspects):

- **Energy auditing** (presently we are focusing on large companies with the value of cost of annual consumption more than \$10,000,000.0... \$40,000,000.0, such as Thermal Power Station, Mining Companies, Gas and Oil pipe-line and so on). *While energy auditing one of the iron ore-dressing company in Ukraine, We have done the following works:*

1) **Some elements of disclosing**, including the disclosing of manufacturing expenses structure in 1990-1997 in comparable prices (in 1997 the level of prices in Ukraine was more than 100,000 times as much as that in 1990; the ratio between the expenses for purchased goods and materials, energy resources and the like has also changed). All this has become the basis for the calculation of the enterprise **break-even point** depending on the value output, the quantity of expenses for wages (2 versions: a «wage freeze» and a wage change in proportion to the output value change) and the level of losses from barter. The calculations above have substantiated the impossibility of the rise in wages in the near future and allowed the enterprise top management to enter into an agreement with Trade Unions on the «wage freeze» until the enterprise becomes profitable.

2) **The specific consumption of energy resources has been analyzed.** As a result the procedure for the calculation of the specific energy-resources consumption depending on the change in the output volume has been worked out. This procedure has offered an opportunity to analyze the personnel work effectiveness when the output volume increases. Such an approach permitted to detect the misappropriation of more than \$500,000 worth of diesel fuel during 1996-1997 years.

3) Some energy-saving measures have been worked out. ***The realization of cost-free (no-cost) or organizational energy conservation opportunities (ECO) will result in more than 36% saving in expenditures for energy resources.*** For example, only the removal of 3 old palletizing machines «OK-108» will give the annual saving of not less than \$5,000,000...\$6,000,000.

- **Energy management** (energy management system designing).
- **Energy saving in electric drive systems.**
- **Specific energy consumption analyses.**

2) Electric drive systems.

Simulation, calculation and designing, including electrical and mechanical parts of electric drive like complex electromechanical system.

Load balancing in multi-motors electric drives.

3) Belt conveyors.

Simulation, calculation and designing the belt conveyors, like complex electromechanical system which consists of electrical and mechanical parts. Design the systems for protection against the skidding, linear tearing of conveyor belt, steady oscillating mode followed by skidding of the second along the belt movement drive drum (I have registered this regime for the first time), etc.

4) Teaching.

EDUCATIONAL BACKGROUND

Institution and Location	Degree and Field of Study	Data
1	2	3
International Management Institute (IMI-KYIV, Ukraine) USAID financed Program	MBA - Master of Business Administration <i>Diploma No. 436</i>	1997- -1998
National Technical University of Ukraine “Kyiv Polytechnic Institute” TACIS Program No. EUK 9406 (KYIV, Ukraine)	ENERGY MANAGER <i>Diploma No. 00012</i>	1996- -1997
AEE - ACEM training program (KYIV, Ukraine)	CERTIFIED ENERGY MANAGER <i>Diploma No. 0044821</i>	1996
National Technical University of Ukraine “Kyiv Polytechnic Institute” (KYIV, Ukraine)	Ph. D. (Candidate of technical sciences) in automation control in electric drive systems of belt conveyors <i>Diploma No. 112350</i> Professor <i>Diploma ДЦ АР№005922</i>	1988
National Technical University of Ukraine “Kiev Polytechnic Institute” (KYIV, Ukraine)	Honor Diploma of Electrical Engineer <i>Diploma No. 030731</i>	1973- 1979
TRIGEN - Philadelphia Energy Corporation; CINERGY - Cincinnati Energy Corporation USEA, USA	Training in US companies Program in Energy and General Management, Investment project in energetic and energy saving; Business Communication, Marketing and Finance	1998
Moody’s Investors Service; ABN Amro Bank; The World Bank Group USEA, USA	Short-term training Program in financing and financial consulting	
MTP TACIS Program (Denmark, Austria, Poland)	Managers' Training Program (4 week program for TOP management): ENERGY SAVING	2007
SYSTEM OF INTERNATIONAL CERTIFICATION – SIC	“Auditor of Energy Management Systems” according to SIC # ISO50001/15-1 Certificate # SIC.02.181	2012
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION	Energy Management System Expert Level Course	2016- 2017
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION	Certificate of Qualification UNIDO EXPERT Energy Management System Inline with ISO 50001	2017
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION	Energy Management System Training of Trainers	2017

EMPLOYMENT HISTORY

1992 - till Director & Owner of Private Company “ELECTRICAL MECHANICS”:

- present time
1. **Diagnostics, adjustment and modification of electric drive systems (electromechanical equipment assembling and maintenance) at:**
 - *all Ukrainian iron ore-dressing companies (total productivity - more than 40% of former USSR iron ore):*
 - Northern iron ore-dressing company (Krivoy Rog, Ukraine);
 - Southern iron ore-dressing company (Krivoy Rog, Ukraine);
 - Central iron ore-dressing company (Krivoy Rog, Ukraine);
 - Novokrivorozhsky iron ore-dressing company (Krivoy Rog, Ukraine);
 - Inguletsky iron ore-dressing company (Krivoy Rog, Ukraine);
 - Artyoma #2 Mine iron ore-dressing company (Krivoy Rog, Ukraine);
 - *Other enterprises:*
 - Yavoriv Sulphur Company (Lviv region, Ukraine);
 - Odessa Refinery (Odessa, Ukraine);
 - Volnogorsk Titanium Mining Company (Dnepropetrovsk region, Ukraine);
 - Ordzhonikidze Manganese Company (Dnepropetrovsk region, Ukraine).
 2. **Standard No. 0195U025335 of the Ministry of Coal Mining Industry of Ukraine “Belt conveyors. Method of selection and calculation of the drive”;**
 3. **National Standard of Ukraine ДСТУ 3886-99 “Energy saving. Electric drive systems. Method of analyses and selection”.**
 4. **National Standard of Ukraine ДСТУ ISO 13600-2001 “Technical energy systems. Basic concepts”**
 5. **National Standard of Ukraine ДСТУ ISO 13601-2001 “Technical energy systems. Structure for analysis. Energy ware supply and demand sectors”.**
 6. *National Standard of Ukraine ДСТУ 4065-2001 “Energy saving. Energy audit. General technical requirements”.*
 7. *National Standard of Ukraine ДСТУ 4154-2003 “Energy saving. Specific energy consumption. General technical requirements”.*
 8. **National Standard of Ukraine ДСТУ 4156-2003 “Belt conveyors. Electric drive systems. Methodology of calculation and selection” etc.**

1989 - till present time

Professor of Kiev Polytechnic Institute:
 Prepared and deliver courses of lectures:

- “Theory of electric drive”;
- “Electric power consumers”;
- “Theory of belt conveyors”;
- “Mining lifting devices”;
- “Electromechanical equipment assembling and maintenance”;
- **”Energy saving modes and technologies”;**
- “Energy saving in electric drive”;
- **“Energy management”;**
- **“Business planning”;**
- **“Energy audit”;**
- **“Environment management”;**
- **“Environment audit”, etc.**

1999- 2007 **Professor of International University of Finance (Kiev)**

1999- 2007 **Professor of Newport University (business planning) (USA)**

- 1996 **Energy auditing at Power Units 200 MW and 300 MW of two Power Plants of Ukraine.**
- 1997-1998 **Energy auditing, disclosing and business-planning at Central iron ore-dressing company (Krivoy Rog, Ukraine).**
- 1997-1998 **Energy audit at:**
- **Inguletsky iron ore-dressing company (Krivoy Rog, Ukraine);**
 - **“ISKRA” Lightning Corporation (Lviv, Ukraine);**
 - **Lviv Bakery (Lviv, Ukraine).**
- 1998 - 1999 **Designing Energy management system at Central iron ore-dressing company (Krivoy Rog, Ukraine). *For the first time in Ukraine!***
- 2001 **Energy auditing at Southern iron ore-dressing company (Krivoy Rog, Ukraine)**
- 2001 - 2002 **Energy auditing at Crimea State Plant “TITAN”**
- 2000-2001 **Energy auditing at Kiev Water Supply Plant “Kievvodocanal”**
- 2003 **Energy auditing at Odessa Water Supply Plant “Odesvodocanal”**
- 2003 **Energy auditing at Zaporiggya State Plant “Kremniypolymer”**
- 2004 **Energy auditing at Irpyn brickworks (Irpyn, Kiev region)**
- 2006 - 2007 **Energy auditing at Ternopyl Water Supply Plant “Ternopylvodocanal”**
- 2006 - 2007 **Energy auditing + Designing Energy management system at Volnogorsk mining&metallurgical company (Dnepropetrovsk region, Ukraine)**
- 2007-2009 **Energy auditing + Designing Energy management system at "CRIMSODA" – Crimea Chemical Plant (Krasnoperekopsk, Crimea, Ukraine)**
- 2007-2008 **Energy auditing of tariff Shostka Thermal Power Plant (Shostka, Ukraine)**
- 2008-2009 **Energy auditing of tariff Zaporiggya Heating Supply Company**
- 2012 **Energy auditing at Shostka Thermal Power Plant (Shostka, Ukraine)**
- 2013 **Energy auditing at Inguletsky iron ore-dressing company (Krivoy Rog, Ukraine);**
- 1996 – present time **Designing Standards (more than 40 Standards):**
- National Standard of Ukraine DSTU 3886-99 **“Energy saving. Electric drive systems. Method of analyses and selection”.**
 - Standard of Ukraine I 00013184.0.001-97 **“Methodology of designing standards in sphere of energy saving”.**
 - National Standard of Ukraine DSTU 4065-2001 **“Energy saving. Energy audit. General requirements”.**
 - National Standard of Ukraine DSTU 4110-2002 **“Energy saving. Specific Energy consumption. Calculation methodology”.**
 - National Standard of Ukraine DSTU 4308-2004 **“Belt conveyor. Electric drive systems. General requirements”.**
 - National Standard of Ukraine DSTU 4156-2003 **“Belt conveyor. Electric drive systems. Calculation methodology”.**
 - Standard of the Ministry of Ukraine on construction, architecture and housing and municipal economy 74.30-35077234.011:2007 **“Energy saving. Energy management for municipal economy. General requirements”.**

- Standard of National Joint-Stock Company "NATOGAZ OF UKRAINE" COY 74.1-20077720-024: 2006 "**Energy saving. Energy audit of oil and gaz enterprises. General concepts**";
- Standard of Joint-Stock Company "UKRTRANSNAFTA" COY 74.1-20077720-024: 2006 "**Oil Pipelines. Energy saving. General requirements**".
- **11 National Standards of Ukraine, harmonized with ISO 8528-1, ..., ISO 8528-10, ISO 8528-12**
- National Standard of Ukraine harmonized with **International Performabce Measuring & Verification Protocol (IPMVP)**
- National Standard of Ukraine harmonized with ISO 13600-1997 "**Technical Energy Systems. Basic concepts**"
- National Standard of Ukraine harmonized with ISO 13601: 1998 "**Technical Energy Systems. Structure for analysis. Energyware supply and demand sectors**";
- Standard No. 0195U025335 of the Ministry of Coal Mining Industry of Ukraine "**Belt conveyors. Method of selection and calculation of the drive**"
- National Standard of Ukraine harmonized with **ISO 50001 "Energy management systems — Requirements with guidance for use"**
- National Standard of Ukraine harmonized with **ISO 50002 "Energy audits — Requirements with guidance for use" etc.**

OTHER (PUBLIC) ACTIVITY

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| 1996 - till
present time | <p>Chief of experts command of the Council of Central energy audit group (State Committee of Ukraine of Energy Saving):</p> <ul style="list-style-type: none"> • Legislative acts of Ukraine on energy saving and energy auditing; • National Program on energy saving in Ukraine (taking participation in designing). • Expert activity (Examination of reports on energy audit made Ukrainian energy auditors) |
| 1996 - 1998 | <p>Executive Secretary of Certification Council of Ministry of Education of Ukraine</p> <p>Design educational program, licensing, accreditation of high educational organization in energetic, electromechanical and electrical engineering</p> |
| 1996 - 2000 | <p>Science Secretary of Science-Expert Council (Ministry of Education of Ukraine) in electromechanical and electrical engineering</p> <p>Expert activity</p> |
| 1997 - 1999 | <p>Member of Energy Efficiency and Energy Saving Work Group (USA-UKRAINE Kuchma - Gore committee)</p> <p>Expert activity</p> |
| 1998 - 2001 | <p>Consultant of Parliament committee of industrial development</p> |
| 2002 - till
present time | <p>Consultant of Ukrainian Parliament in sphere of energy saving</p> |
| 2002 - till
present time | <p>Organization of conferences and training seminars in sphere of energy saving and ecology</p> |

2009 - till
present time

Executive director of All Ukrainian public organization “Energy Auditors & Energy managers Supreme Council of Ukraine”

LIST TRAINING COURSES TAUGHT OR CURRENTLY TEACHING:

- “Energy saving modes and technologies”;
- “Energy saving in electric drive”;
- “**Energy management**”;
- “**Business planning**”;
- “**Energy audit**”;
- “**Environment management**”;
- “**Environment audit**”;
- “Theory of electric drive”;
- “Electric power consumers”;
- “Theory of belt conveyors”;
- “Mining lifting devices”;
- “Electromechanical equipment assembling and maintenance”, etc.

PUBLICATIONS

I have more than **100** scientific publications (mainly in Russian and Ukraine); **11** patents for inventions; **2** textbooks (Mining machines; Energy saving in electric drive systems; Energy management); more than **40 national standards of Ukraine** in energy saving and energetic.

English language scientific publications: **PEMC’96** - conference (2 reports); **EPE’97** - conference (report); **PEMC’98** - conference (report); **EPE-PEMC-2000** - conference (2 reports); **Keynote Speaker at the 2nd International Conference on "Advances in Steel, Power and Construction Technology // March 17-19, 2016. – OP Jindal University, Raigarh (CG) India, etc.**

LANGUAGE SKILLS: (1=rudimentary; 5=mother tongue):

Language	Reading	Speaking	Writing
Russian	5	5	5
Ukrainian	5	5	5
English	4	4	4

INTERESTS: My family; My work (I’m planning to write a book “Energy Management: Financial, Technical and Marketing aspects” and found a magazine “Energy management”); Teaching; Articles about Technical, Financial, and Marketing aspects of energy saving and electromechanical equipment in central Ukrainian magazines; Sports; Literature.

References available upon request

Detail information see at

<http://elektromekhanika.com/en/>