

CURRICULUM VITAE



PERSONAL PARTICULARS

Name in full: Ryspek Usubamatov

Current residence: Malaysia

E-mail: ryspek@unimap.edu.my; usubamatov@yahoo.com

Profession: Mechanical, Manufacturing, Industrial, and Automation Engineer

Areas of Expertise

- Automation of Manufacturing Processes
- Theory of Industrial Productivity
- Automated Production Lines Design
- Machine Tools Technology
- Machine component design
- Statics, Kinematics and Machine Dynamics
- Automated Material Handling, and Robotics
- Gear Machining on Multi-Axis CNC Working Centres
- Industrial Machines Reliability
- Fluid Power
- Fluid Mechanics
- Manufacturing Processes

Academic Qualification

- 1994 – 96. Diploma in “English language and literature”, Kyrgyz Technical University - Kyrgyzstan,
- 1993 - Degree of the Doctor of Technical Sciences, National Academy of Sciences, Kyrgyzstan, Russia, Field of Study: Gear machining kinematics on multi-axis CNC machining centres. Awarded 9 June 1994.
- 1968-72 - Degree of the Candidate of Technical Sciences (Ph. D). Moscow State Technical University named after N. Bauman, Russia, (MSTU) Field of Study: “Reliability of automated production lines for bearings production “. Awarded 19 June 1972
- 1960-1966 Diploma of the Professional Engineer in Mechanical, Manufacturing and Industrial Engineering, (MSTU). Awarded 24 June 1966.

Courses Attended

- 2008 - Certificate in “International Seminar on Advanced Development in Spanish Machine Tools Technology” Kulim Hi-Tech Park, Kedah, Malaysia.
- 2004 – Certificate in “Composite materials and structures”, Workshop, Texas A&M University College Station, Texas, USA. University Putra Malaysia.
- 2004 - Certificate in “Reliability and quality engineering “, Workshop, The State University of New Jersey, Rutgers, Kuala Lumpur, Malaysia
- 2000 - Certificate in “Internet Technologies and Web Publishing” – Asia Pacific Mountain Network

1998 - Certificate in “Small and medium size enterprise management “- Japan Centre in Kyrgyzstan

Professional Experience

Academic

2006 – Present, Professor of the School of Manufacturing Engineering. University Malaysia Perlis, Malaysia,
2002-2005 – Professor of the Mechanical and Manufacturing Engineering Department. University Putra Malaysia.

Administrative:

1999-2002. International Institute of Mountains, Kyrgyzstan. Director
1992 – 1999. Kyrgyz Technical University, Kyrgyzstan, Rector, Professor. Local co-ordinator of the TACIS Project.

Academic:

1980-1992. Bishkek Polytechnic Institute, Kyrgyzstan. Deputy Dean of Mechanical Engineering Faculty. Head of the Department “Automation of Manufacturing Production”
1972 - 1980. Frunze Polytechnic Institute, Kyrgyzstan, Associated Professor, Lecturer, Department of Automation and Mechanization of Production
1969 - 1972 Moscow State Technical University named after N. Bauman, Russia. Part-time lecturer.

Professional

1968 - 1972 Moscow State Technical University named after N. Bauman, Russia, Engineer-Researcher (field of study: productivity and reliability of automated production lines)
1966 – 1968. Frunze Engineering Plant, Kyrgyzstan. Machine Tool Engineer –Designer.
1960 – 1961 Moscow Lorry Plant named after Lihachev, Russia, Machinist.

Research Interests

CNC/CAD/CAM, Multi-axis Gear Machining on CNC Machining Centres
Theory of Industrial and Manufacturing Productivity
Industrial Machines Reliability, Engineering Inventions

Courses taught at Moscow State Technical University named after N. Bauman, Bishkek Polytechnic Institute, Kyrgyz Technical University, University Putra Malaysia, University Malaysia Perlis:

- Automation of manufacturing processes
- Design of automatic machines and automated lines
- Automation of transport systems and assembling processes
- Machine tools design
- Machine tool technology
- Fluid Mechanics and Fluid Power
- Quality Control
- Engineering Statistics
- Industrial System Design
- Industrial Management
- Industrial Safety and Health
- Machine component design
- Manufacturing systems
- Theory of Manufacturing and Industrial Productivity.
- Machine Kinematics and Dynamics

Doctoral Research Supervision:

Gear Machining on CNC Machining Centres
Reliability of Manufacturing Systems

Graduate Student Research Supervision:

Professional Engineer Projects: 93
Master Thesis: 15
Candidate of the Technical Sciences: 2 (PhD)
External Doctoral Dissertation Examiner: 6
University Malaysia Perlis: 2 PhD, and 2 MS students

Consultancy Services and Adjunct Appointment:

1995. Expert of an International Association of European Community (INTAS) acting to promote the valuable scientific potential and to support east-west scientific co-operation. ID 3708, www.intas.be.
1987. Expert, consultant of higher education for the developing countries (UNESCO),

Publications:

More than 220 Scientific papers in Russian and International journals and including 7 books, 16 brochures, 12 Ministry of Higher Education, USSR scientific projects with state registration, 61 Russian patents of inventions in area of Mechanical and Manufacturing Engineering. Most publications in Russian highly referred journals: "Izvestia Vyshih Uchebnyh Zavedeni", "Vestnik Mashinostroenia", "Stanki i instrumenty", "Machinostroitel", "Tehnika Mashinostroenia", "Avtomatizatsia machinostroenia", "Bulleted izobretenii", Moscow. Publications in English language are one book and 30 scientific papers.

Publications and inventions are in the following subject areas:

- Reliability of Automated production lines
- Gear machining on CNC Machining Centers
- Theory of Industrial and Manufacturing Productivity
- Module Based Design of CNC Machine Tools
- Automated Transport Systems and Robotics
- Machine Tool technology
- Fluid Power

Presentations and Sponsored Research Projects:

- Made technical presentations in more 50 international conferences/workshops/seminars;
- Carried out 13 Ministry of Higher Education, USSR, and engineering plants (contract) sponsored research projects.
- Leader of two projects (University Malaysia Perlis) sponsored by Ministry of Higher Education, Malaysia:
 1. Rotary valve of the gas intake and exhaust mechanism for IC engines.
 2. Washing machine with squeezing, filtering and recycling process.

Skills: Microsoft Office 2003, Internet Technologies, MathCAD, Good analytical and initiatives as well as creative thinking. Self independent and fast learner, inventor

Programming languages: Assembler, ISO-7bit

Languages: Kyrgyz (Turk) – excellent, English – good, German-moderate, Russian- excellent,

Memberships:

- 1994 - Present. Academician of International Academy of Higher Education -Russia,
- 1998 - 2002. Member of ACCESS (UNESCO),
- 1998 - 2002. Member of Superior State Scientific Committee, Kyrgyzstan,
- 1999 – 2002 Member of Scientific Council, Kazakh State Technical University, Kazakhstan,
- 2008- present Member of World Academy Sciences of Engineering and Technology
- 2008 – present. Member of The American Association for the Advancement of Science, AAAS Number is 40242231

Honours and Awards

- 1982. State medal: “Valorous Labour”, Soviet Union,
- 1993. Government medal: “Exemplary Educator”, Kyrgyzstan
- 1996. Government medal: “Manas-memorial plague”, Kyrgyzstan
- 1974. First degree Diploma of State Exhibition, “Transport systems for Automated Production Lines”, Kyrgyzstan.

Recent publications:

Books.

1. R.Usubamatov, “*Gear Manufacturing on Module Based CNC Working Centers*”, 2006, Bishkek, Kyrgyzstan.
2. R Usubamatov, *Theory of Machine and Labor Productivity*, University Malaysia Perlis, 2008.

Journals.

1. R.Usubamatov, Productivity of automated lines divided on sections. “*Tehnika mashinostroenia*” 2004, #5 (51), Moscow, Russia, p. 31-34.
2. R.Usubamatov, High accuracy machining of straight teeth bevel gears. “*Tehnika Mashinostroenia*” 2004, #6 (52), Moscow, Russia, p. 31-32.
3. R.Usubamatov, A. Samsaliev, New methodic for machining bevel gears. “*Izvestia KNTU named after I. Razzakov*” #7, 2005. Technical Sciences and New Technologies. Kyrgyzstan.
4. R.Usubamatov, N, Ismail, M. Megat, Productivity of rotary automated lines “*Tehnika mashinostroenia*” 2005, #2, Moscow, Russia
5. R.Usubamatov, A. Usubamatova, Boundary conditions of feeding and assembling machine parts in automatic machines. “*Tehnika Mashinostroenia*” 2006, #4, p. 48-50, Moscow, Russia.
6. R.Usubamatov, A. Usubamatova, , Productivity rate of rotor type automatic machines and lines. “*Tehnika Mashinostroenia*” 2007, #1, p. 54-55, Moscow, Russia.
7. T. Vijayaram, R.Usubamatov, Quality machining of straight tooth bevel gears to avoid tooth profile deviation based on an analytical approach solution. *Journal of Technology Management and Entrepreneurship* (ISSN 1675-8404), A Publication of the Institute of Technology Management and Entrepreneurship V.6, N1, 2007, p. 97 – 101.
8. R Usubamatov, Z Abdulmuin, A Nor and M.N. Murad, Productivity rate of rotor-type automated lines and optimization of their structure, *Proc. IMechE, Part B: Journal of Engineering Manufacture*, 2008, 222(B11), 1561-1566
9. R Usubamatov, “ Acceleration Analysis of a Rotating Body”, *Proceedings of World Academy of Sciences, Engineering and Technology*”, V.38, February 2009, ISSN 2070-3740, p 1235-1238.
10. R Usubamatov, Z Abdulmuin, “ Optimization of Structure of Section-Based Automated Lines”,

Proceedings of World Academy of Sciences, Engineering and Technology”, V.38, February 2009, ISSN 2070-3740, p 1231-1234.

11. R. Usubamatov, A Usubamatova, and S. Hussain, Reliability of Chute –Feeders in automatic machines of High Production Capacity, *Proceedings of World Academy of Sciences, Engineering and Technology*, V. 38, Febr. 2009 ISSN: 2070-3740, p. 1442-1446.

Proceedings of conferences

1. R.Usubamatov, N. Ismail, N. Saihong, Productivity rate of rotary automatic machine and automated production line of parallel-sequence action. “*The AESEAP International conference 2005*” June 7-8, 2005, Kuala Lumpur Malaysia
2. R.Usubamatov, N. Ismail, N. Saihong, Machining with cinematically change of cutter angle. ICRAMME 05. *Proceeding of the International Conference on the Recent Advances in Mechanical & Materials Engineering*. 30-31 May 2005, Kuala Lumpur, Malaysia.
3. Z. Abdul Rashid, R. Usubamatov, New design arrangement of gas intake and exhaust mechanism for internal combustion engine, “ *Proceeding of Malaysian Technical Universities Conference on Engineering and Technology 2006, MUCET 2006*” 19-20 December 2006, Malaysia, p. 68-72.
4. R.Usubamatov, M. Zaki, A. Zuraida, ARS07-18, New Development in Manufacturing Automation Engineering, *Proceedings AESEAP, Regional Symposium on Engineering Education*. “*New Strategies in Engineering Education*”. University Malaya, Kuala Lumpur, Malaysia 14 February 2007, p. 97-102.
5. Z. Abdul Rashid, R. Usubamatov, S. Husain, Low power-consuming a buffer in manufacturing systems. *Proceedings, 1st International conference on sustainable materials 2007, ICoSM 2007, Sustainable Materials: Designing for a Sustainable Environment*, 9-11 June 2007, Penang, Malaysia, p. 22-26.
6. Zulkifli, Suhaila, R.Usubamatov, A. Usubamatova, Automatic separator of a disc type parts for workshop transport system. *Proceedings of Conference on Applications and Design in Mechanical Engineering*, 25-26 October 2007, Kangar, Perlis, Malaysia
7. R. Usubamatov, Z. Abdul-Rashid, S. Hussain Rotary Valve Flow of Gas Intake and Exhaust Mechanism in an Internal Combustion Engine, *Proceedings of MUCET 2008, Technical; Universities Conference Engineering and Technology*, 15-16 March 2008, Putra Palace, Kangar, Perlis, Malaysia.
8. R. Usubamatov, Abdul Rahman Riza, Muhammad Nasir bin Murad, Methodology Development for Calculating Productivity and Its Losses in Assembly Line Environment to Gain New Production Recourses. *Proceedings of MUCET 2008, Technical; Universities Conference Engineering and Technology*, 15-16 March 2008, Putra Palace, Kangar, Perlis, Malaysia.
9. Y. N. Heap, R. Usubamatov, Z. Muin, The Study of Dynamically Active Washing Process of a Washing Machine, *Proceedings of MUCET 2008, Technical; Universities Conference Engineering and Technology*, 15-16 March 2008, Putra Palace, Kangar, Perlis, Malaysia.
10. R. Usubamatov, A. Usubamatova, Z. Abdul Rashid, New Development in the Theory of Design of Rotary Type Automated Lines. *Proceedings of MUCET 2008, Technical; Universities Conference Engineering and Technology*, 15-16 March 2008, Putra Palace, Kangar, Perlis, Malaysia.
11. R. Usubamatov, Z. Abdul-Rashid, and S. Hussain, Rotary Valve Flow of Gas Intake and Exhaust Mechanism in an Internal Combustion Engine, *Proceedings of ICPER 2008, International Conference on Plant Equipment and Reliability*, 27-28 March 2008, Sunway Pyramid Convention Centre, Selangor, Malaysia.

12. R. Usubamatov, Z. Abdul-Rashid, and S. Hussain, Integrated Indices of Reliability of Industrial Machines, *Proceedings of ICPER 2008, Plant Reliability, International Conference on Plant Equipment and Reliability*, 27-28 March 2008, Sunway Pyramid Convention Centre, Selangor, Malaysia, p 17-20.
13. R. Usubamatov, A. Usubamatova, Z. Abdul-Rashid, Optimisation of the Structure of Rotary Type Automated Line Design, *Proceedings of ICPER 2008, Materials and Manufacturing, International Conference on Plant Equipment and Reliability*, 27-28 March 2008, Sunway Pyramid Convention Centre, Selangor, Malaysia, p. 12-15.
14. B. Abdul Holed, R. Usubamatov, Z. Abdul Rashid, , Module Based CNC Machining Centers for Multipurpose Machining, *Proceedings of ICPER 2008, Materials and Manufacturing, International Conference on Plant Equipment and Reliability*, 27-28 March 2008, Sunway Pyramid Convention Centre, Selangor, Malaysia, p. 6-10.
15. Abdul Rahman Riza, R. Usubamatov, Methodology Development for Calculating Productivity and Its Losses to Measure Productivity Incremental in Assembly Line Environment, *Proceedings of ICPER 2008, Plant reliability, International Conference on Plant Equipment and Reliability*, 27-28 March 2008, Sunway Pyramid Convention Centre, Selangor, Malaysia, p 94-98.
16. R. Usubamatov, T. R. Vijayaram, A. Usubamatova, Reliability Engineering on Feeding Systems in Automatic Machines of High Production Capacity. “*Design Excellence for Manufacturing Sustainability*” *Proceeding DECON 08*, 28-29th October 2008, p. Malacca, Malaysia, 109-116.
17. R. Usubamatov, T. R. Vijayaram, F. Hamid, A. Usubamatova, Calculating Tolerances of Linear, Angular Sized Parts and Feeders for reliability Assembly Process in Precision. “*Design Excellence for Manufacturing Sustainability*” *Proceeding DECON 08*, 28-29th October 2008, Malacca, Malaysia, p. 179-186.
18. R. Usubamatov, S. Hussain, H. Yee Heap, F. Hamid Mohd, I. Abdul Rahman, Labor and industrial productivity in improving economical development. *Proceedings of International Conference on the Roles of the Humanities and Social Sciences in Engineering*, 2008, ICOHSE 2008, 5-6 Dec. Legend Hotel, Kuala Lumpur, p. 370-385

Patenting

1. R. Usubamatov, et al, Turn bridge, *Malaysian patent*, MY-137382-A, 30. 01.2009
2. R. Usubamatov, et al, Valve arrangement of an internal combustion engine, *Malaysian patent*, patent pending, 2004, PI 20040022
3. R. Usubamatov, et al, Wind power station, *Malaysian patent*, patent pending, 2005, PI 20051279.
4. R. Usubamatov, et al, Rotor type hydraulic actuator. *Malaysian patent*, patent pending, 2004, PI
5. R. Usubamatov, Machine tool for processing of bevel gears with spiral tooth, *Malaysian patent*, patent pending, 2005, PI 20053347
6. R. Usubamatov, Washing machine, *Malaysian patent*, patent pending, 2009