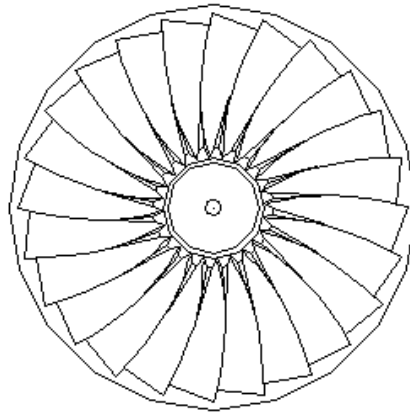
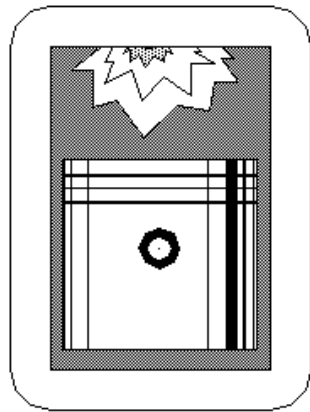


**National Aerospace University «KhAI»
National Technical University «KhPI»
State Enterprise «Ivchenko-Progress»
Petro Mohyla Black Sea State University
Admiral Makarov National University of Shipbuilding**



**XX
INTERNATIONAL
CONGRESS OF
PROPULSION ENGINEERING**

September 5-10, 2015

Invite letter and program

Kharkiv – Mykolaiv – Koblevo – Ukraine

WELCOME!

The 2015 Organizing Committee would like to cordially invite you to attend the XX International Congress of Propulsion Engineering.

The Congress focuses scientific-technical communications, the determination of perspective ways to create and develop new equipment and technologies, finding new opportunities for designing the engines of non-standard schemes and sizes, making business and finding new commercial contacts.

Congress is to be hold at the «VIPOTEL» hotel & «Black Sea» hotel in Koblevo, Mykolaiv Oblast, Ukraine, September 05 – 10, 2015

Organizing Committee:

- National Aerospace University «KhAI»;
- National Technical University «KhPI»;
- State Enterprise «Ivchenko-Progress»;
- Scientific and industrial company «FED»;
- Petro Mohyla Black Sea State University;
- Admiral Makarov National University of Shipbuilding.

Languages of the Congress: Ukrainian, Russian, English.

Contact persons in Kharkiv, Ukraine:

ALEXANDER BILOGUB

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SERGIY YEPIFANOV

Dr. Eng., Prof.

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Regulations:

Report to the plenary session	25 min.
Report to the session	12 min.
Discussion	5 min.

Available technical facilities:

- PC with projector (Power Point presentations preferred).

Arrival day: September 05

Registration from 9⁰⁰ to 20⁰⁰

Conference dates: September 06-09

Departure day: September 10

How to get to the place of event: Shuttle busses **Odessa** (railway station) – **Koblevo, Mykolaiv** (railway station) – **Koblevo, Odessa** (airport) – **Koblevo**.

Organizing Committee strongly recommends to:

- By return tickets beforehand;
- Inform the committee about day and time you plan to arrive to the congress;
- Prepare the poster presentation because of possible changes in sessions schedule (authors may choose the most convenient format of the poster presentation).

CHAIRS/COMMITTEE OF THE CONGRESS

- Conference Chair –** Rector of National Aerospace University “KhAI”,
Dr. Eng., Prof. **V.S. Krivtsov**
- Vice chair –** Rector of Petro Mohyla Black Sea State University
Dr. Eng., Prof. **L.P. Klimenko**
- Chairman – Chief designer of State Enterprise
«Ivchenko-Progress», PhD, Assoc. Prof. **I.F. Kravchenko**;
- Vice rector of National Technical University «KhPI»,
Dr. Eng., Prof. **A.P. Marchenko**
- Academic Secretary –** Prof. of National Aerospace University “KhAI”,
Dr. Eng. **O.V. Bilogub**

Члены программного комитета:

- PhD Alyokhin S.A. (KhKBD Diesel Engines Design Bureau, Ukraine)
- Dr.Eng., Prof. Ambrozik Andg. (Polytechnica Sventokshyska, Poland)
- Dr.Eng., Prof. Bezruchko K.V. (KhAI University, Ukraine)
- Dr.Eng., Prof. Bilogub O.V. (KhAI University, Ukraine)
- Dr.Eng., Prof. Vorobyov Y.S. (IPMash NASU)
- Dr.Eng., Prof. Gaydachuk O.V. (KhAI University, Ukraine)
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- Dr.Eng., Prof. Dolmatov A.I. (KhAI University, Ukraine)
- PhD, Ass. Prof. Fedorchenko D.G. (JSC “Kuznetsov”, Russia)
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- Dr.Eng., Prof. Ivaschenko N.A. (MSTU, Russia)
- NASU Academ. Khalatov A.A. (ITE NAU, Ukraine)
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- Dr.Eng., Prof. Kulik N.S. (NAU, Ukraine)
- NASU Academ. Matsevity Y.M. (IPMash NASU)
- Dr.Eng., Prof. Nozhnitsky Y.A. (CIAM Central Institute for Aircraft Motors, Russia)
- Dr.Eng., Prof. Parsadanov, I.V. (NTU “KhPI”, Ukraine)
- NASU Cor.Mem. Pilipenko O.V. (Inst. of Technical Mechanics NASU and NCAU, Ukraine)
- RAS., Academ. Popov G.A. (“RIAME MAI”, Russia)
- RAS., Academ. Petukhov A.N. (CIAM Central Institute for Aircraft Motors, Russia)
- Dr.Eng., Prof. Pylev V.A. (NTU “KhPI”, Ukraine)
- Dr.Eng., Prof. Radkovski S. (Polytechnika Warszawska)
- Dr.Eng., Prof. Simbirsky D.F. (KhAI University, Ukraine)
- Dr.Eng., Prof. Strokov A.P. (IPMash NASU, Ukraine)
- Dr.Eng., Prof. Timoshevskiy B.G. (Admiral Makarov NUS, Ukraine)
- Dr.Eng., Prof. Chaynov N.D. (MSTU, Russia)

Working group:

- | | |
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E-mail: aedlab@gmail.com

PROGRAM OF CONGRESS

September 6

10⁰⁰ – 13⁰⁰

PLENARY SESSION

Session Chair: **V.S. Krivtsov, Dr. Eng.** (KhAI, Kharkov);
L.P. Klimenko, Dr. Eng. (BSSU, Nikolaev);
I.F. Kravchenko, PhD
(SE «Ivchenko-Progress», Zaporozhye);
A.P. Marchenko, Dr. Eng. (NTU «KhPI», Kharkov)

Academic
Secretary:

O.V. Bilogub, Dr. Eng. (KhAI, Kharkov)

1. S.V. YEPIFANOV, A.V. BILOGUB (Kharkov). **Twenty Congresses of propulsion engineering.**
2. S.O. DMYTRIYEV, O.V. POPOV, D.V. POPOV, H.O. ARISTOV (Kyiv). **Information technologies that provide design-maintenance parameters of aircraft and aircraft engines**
3. P.M. KANYLO, A.P. MARCHENKO, Y.V. PARSADANOV (Kharkov). **Heat energy development, ICE and global climate warming.**
4. V. A. ZADONTSEV (Dnepropetrovsk). **Hero of Social Labor Boris Ivanovich Gubanov (1930-1999) – Chief designer of CR “Energia” and RSS “Energia-Buran”, to 85th anniversary of birth**

Evening Meeting of Section

GENERAL PROBLEMS OF PROPULSION ENGINEERING

September 6, 14⁰⁰ – 19⁰⁰

Chairmen: **V.V. Loginov, Dr. Eng.** (KhAFU, Kharkov);
V.I. Ryabkov, Dr. Eng. (KhAI, Kharkov).
Secretary: **S.M. Stepanenko, Ph.D.**
(SC “Ivchenko-Progress”, Zaporozhye).

1. **V.I. RYABKOV, D.V. TINYAKOV (Kharkov). Investigation of the influence particular criteria of efficiency of the lifting surfaces system on the integral indexes of competitiveness of transport category airplanes**
2. **Ju. BABENKO (Kharkov). Tariffs formation for air transportation taking into account unit cost during life cycle of heavy transport aircraft modifications**
3. **Ju. BABENKO (Kharkov). Management of the effectiveness of a generational transport aircraft modification at the stage of its development**
4. **Ju. BABENKO (Kharkov). The concept of control parameters in problems of assessing the effectiveness of prognostic models and modifications and changes that have occurred over the life cycle**
5. **Ju. BABENKO (Kharkov). Estimation features of administrative plane modifications economic efficiency on the project stage**
6. **Ju. BABENKO (Kharkov). The method of valuation of short-haul passenger aircraft**
7. **L.V. KAPITANOVA (Kharkov). Takeoff and landing wing configuration and its influence on takeoff and landing airplane parameters**
8. **L.V. KAPITANOVA (Kharkov). Takeoff mass determination method of modifications of transport category airplanes by takeoff and landing conditions**
9. **V.V. LOGINOV (Kharkov). The software to form a parametric design of a power plant as a component of an aircraft.**
10. **V.V. LOGINOV (Kharkov). Software for forming of operational performance of engine aircraft power plant**
11. **V.V. LOGINOV, S.V. KYRNAZHITSKYIY (Kharkov). The effect of the aircraft engine lifetime parameters on a combat aircraft operational cycle.**

12. V.V. LOGINOV (Kharkov). **Analysis of the state of reliability of aerotechics**
13. A.M. TERESHIN (Zhukovsky). **Estimation of main vehicle performance characteristics (thrust, lift-to-drag ratio, range) by using results of ramjet branch testing**
14. A.I. POPUGA (Zaporozhye). **Main directions of reduction of aircraft noise**
15. V.N. ZHARIKOV (Houston, USA). **Aeroderivative gas turbines. Scope of application. Standards**
16. O.I. VOLOSHYNA, S.M. STEPANENKO, V.G. KHARCHENKO (Zaporozhye). **On the requirements for the content of aeronautical equipment design organization handbook**
17. A.P. GOZHYY, V.A. GOZHYY (Nikolaev). **Distribution of energy resources modeling based on color Petri nets**
18. M.R. TKACH, B.G. TIMOCHEVSKIY, S.M. DOCENKO, J.N. GALINKIN (Nikolaev). **Performance of the working fluid for metal hydride utilization continuous plant**
19. M.R. TKACH, B.G. TIMOCHEVSKIY, S.M. DOCENKO, J.N. GALINKIN (Nikolaev). **Specific power the hydrogen expansion machine as part of the metal hydride utilization continuous plants**
20. M.O. HOZULYAK, D.S. MINCHEV, A.V. NAGIRNYI, M.S. BANDARENKO (Nikolaev). **Reasonable layout for the regasification complex of the LNG terminal at variable natural gas delivery conditions**
21. B.G. NEKHOROSHEV **Rotary-piston electrical compressor ЭБК 0,4/0,8**
22. I.B. BUTSUKINA (Kharkov). **Construction of precedents in CBR-systems using mining techniques processes**
23. A.Y. KAL'NITSKAYA (Kharkov). **The organization of monitoring business processes of the enterprise on the basis of logs events.**
24. O.V. CHALAYA (Kharkov). **Transformation process modeling unformalized knowledge**
25. I.M. TKACHENKO (Kharkov). **Development of tools for support of decision-making according to the analysis of activity of trainees in technical college**
26. I.M. TKACHENKO (Kharkov). **Modeling of action studying in institution of higher education by means of temporal logic**
27. V.D. PETRENKO (Kharkov). **Questions of computer realization of the developing testing in systems of distance learning**

Evening Meeting of Section

DESIGN AND STRENGTH

September 6, 14⁰⁰ – 19⁰⁰

Chairmen: **N.P. Velykanova, Dr. Eng.** (KAI, Kazan');
Yu.S. Vorobyov, Dr. Eng. (IPMash, Kharkov);
A.P. Zin'kovskiy, Dr.Eng. (IPS, Kiev).
Secretary: **E.V. Martsenyuk** (KhAI, Kharkov).

1. **V.O. POVGORODNY** (Kharkov). **Modern areas of appendix of reverse tasks of mechanics and thermomechanics**
2. **V.I. NAZIN** (Kharkov). **Influence of location of chambers on circumference on static kharkteristiki of radial-persistent gidrostatodinamicheskogo bearing of the doubled type**
3. **V.I. NAZIN** (Kharkov). **Comparison of dynamic descriptions of the doubled and single hydrostatodinamic bearings**
4. **V.I. NAZIN** (Kharkov). **Effect of setting stiffness of rings on disk the dynamic characteristics hydrostatodinamic type double bearing**
5. **N.A. PANCHENKO** (Kiev). **Numerical simulation of double jet film cooling**
6. **G.A. FROLOV, D.V. BOROVNIK, A.D. KOLOTILO, A.L. LAMEKO, E.V. OLIGOV, A.V. PANICH, A.M. POTAPOV, V.G. TYKHYY, I.A. GUSAROVA** (Kiev, Dnepropetrovsk). **Identification of thermo-physical properties of honeycomb structure samples within temperature ranging between -60 and + 250 °C and under pressure between 10^5 to 10^{-1} Pa**
7. **JU.M. KOBZAR** (Kiev). **To assess the durability to fatigue smooth cylindrical rods under uniaxial symmetric stretch – compression**
8. **V.G. MARTYINENKO N.I. GRITSENKO** (Kharkov). **Static and dynamic strength analysis of an axial compressor considering the aerodynamic properties of flow and non-uniformity of a temperature field**
9. **E.V. MANUYLOV**. **Method to analyze the power load of the turbo-charger shaft supports in an ICE.**
10. **A.V. SHEREMETEV, T.I. PRIBORA, V.V. TIHOMIROV** (Zaporozhye). **Analysis of using submodeling results in determining the stress-strain state and components life of aircraft gas-turbine engine**
11. **E.V. MARTSENYUK, Y.A. ZELENYJ, S.B. REZNIK, R.R. KLIMIK, T.V. KULIK** (Kharkov, Zaporozhye). **Identification of heat transfer boundary conditions of the turbine by test results**

12. A.A. BRUNAK, D.F. SIMBIRSKY (Kharkov). **Issues of vibrations in cyclic durability of the aircraft GTE parts**
13. A. BRUNAK, A. ONISHENKO (Kharkov). **A comparative study of methods for cyclic lifetime turbine blades calculation while their complex loading**
14. N.P. VELIKANOVA, P.G. VELIKANOV, A.S. KISELEV (Kazan). **Analysis of resource capabilities of aircraft GTE turbine disk for helicopters**
15. A.S. YAKUSHENKO, P.B. KOROLYOV, V.E. MILTSOV, A.Y. BORISYUK, O.I. CHUMAK (Kiev). **The modelling of accumulation of aviation engine's damages at different laws of control by its operation during take-off**
16. N.V. KHORIAK, A.D. NYKOLAYEV, S.I. DOLGOPOLOV (Dnepropetrovsk). **Theoretical efficiency estimation of dynamic damper of pogo vibrations of liquid rocket launch vehicle**
17. A.I. TARASENKO A.A. TARASENKO (Nikolaev). **Determination of the amplitude of torsional vibrations by usage of orthogonal forms**
18. A.I. TARASENKO (Nikolaev). **"Ice" flywheel in ship propulsion systems with low-speed diesel engine in ice navigation**
19. M.R. TKACH, A.A. TARASENKO (Nikolaev). **Research stand based on parameters of torsional vibrations on low speed diesel engine for determination of size effect.**
20. I.U.S. VOROBIEV, N. I.U. OVCHAROVA, P.N. KULAKOV, S.B. KULISHOV, A.N. SKRICKIY (Kharkov, Nikolaev). **Problems of dynamic stress analysis in blading GTE compressor in the gasdynamic flow**
21. YU.S. VOROBIEV, N.YU. OVCHAROVA (Kharkov). **The effect of an impact load on the GTE casing elements**

September 7

Morning Meeting of Section

PISTON COMBUSTION ENGINES

September 7, 9⁰⁰ – 13⁰⁰

Chairmen: **A.V. Grytsyuk, Dr. Eng.** (HKBD, Kharkov);
 I.V. Parsadanov, Dr.Eng. (NTU "KhPI", Kharkov);
 B.G. Timoshevsky, Dr. Eng. (NUSh, Nikolaev).
 Секретарь: **A.N. Klymenko** (NTU "KhPI", Kharkov).

1. V.V. EPIFANOV (Kharkov). **50 years of the transport machinebuilding department of the NTU "KHPI"**

2. **A.P. MARCHENKO, I.V. PARSADANOV, V.A. PYLYEV (Kharkov). On the 85th anniversary of the internal combustion engine department.**
3. **A.V. GRITSUK (Kharkov). Graduates of the ТМ faculty of the Kharkov polytechnic institute in the Kharkov engine design bureau**
4. **P.M. KANILO, A.P. MARCHENKO, I.V. PARSADANOV, A.P. POLIVIANCHUK (Kharkov). Minimisation of cancerogenic danger of the exhaust gases of internal combustion engines**
5. **S.A. VAMBOL', A.P. STROKOV, V.V. VAMBOL', A.N. KONDRATENKO (Kharkov). Methodological approach to development of management system of ecological safety of exploitation of power plants**
6. **A. MARCHENKO, D. SAMOILENKO, A.A. HAMZAH, O.A. HAMZAH (Kharkov). Ways of using waste energy from I.C. Engines exhaust gases**
7. **V.V. BUSHNOV (Kharkov). The optimization synthesis of systems of giving of the fuel of reciprocators working on metallized fuel.**
8. **V.A. KOROHODSKIY (Kharkov). The method for calculating the volume balance workflow of spark ignition engines and a stratification of fuel and air charge**
9. **D.V. LATYSHEV (Zaporozhye). Work cycle research of dual fuel ICE**
10. **T.N. KOLESNIKOVA (Dnepropetrovsk). Theoretical researches of working process of bezshatunnogo of engine**
11. **S.A. ALYOHIN, D.Yu. BORODIN, V.P. GERASIMENKO, V.A. OPALEV (Kharkov). Expansion of a gamut of stable conditions of operation turbopiston diesel**
12. **A. MARCHENKO, A. OSETROV, S. KRAVCHENKO (Kharkov). Support nominal power stationary gas engines when using the low calorie gas fuels**
13. **A.E. KHRULEV (Moscow). Application of engineering methods in the investigation and definition of the cause of engine overheating**
14. **N.M. LUKOV, O.N. ROMASHKOVA, A.S. KOSMODAMIANSKY (Moscow). Method of static and dynamic performance and parameter obtaining for a diesel-electric power plant of a locomotive as an object of shaft rotational speed control.**
15. **V.S. KUKIS, D.V. SHABALIN, J.A. POSTOL (Chelyabinsk, Moscow, Melitopol). Identifying and providing optimal temperaturecharge air during operation of the diesel at different load modes**

16. Y.F. GUTAREVICH, O.V. SIROTA, S.V. KAREV (Kiev). **Impact of the method of power control on the ecological performance and the economy of a fuel in the contemporary gasoline engine**
17. V.N. MEL'NICK, V.V. KARACHUN (Kiev). **The formation surface of the electric discharge of the spark plug "CASSINI"**
18. B.G. TIMOSHEVSKY, M.R. TKACH, A.S. POZNANSKY, A.S. MITROFANOV, A.Y. PROSKURIN (Nikolaev). **Characteristics of the 2 cylinder 4-stroke engine 7,2/6 with additives to 65% of synthesis gas to gasoline**
19. B.G. TIMOSHEVSKY, M.R. TKACH, A.Y. PROSKURIN, A.S. MITROFANOV, A.S. POZNANSKY (Nikolaev). **Efficiency of power plant based on 1 cylinder 4-stroke engine 7,5/6 with thermochemical heat utilization of exhaust gases**
20. YU.N. HALYNKIN (Nikolaev). **An experimental investigation of the elements of metal-hydride utilizing plants of continuous operation.**
21. M.R. TKACH, B.G. TIMOCHEVSKIY, S.M. DOCENKO, J.N. GALINKIN (Nikolaev). **Specific power the hydrogen expansion machine as part of the metal hydride utilization continuous plants**
22. O. CHEREDNICHENKO, M. TKACH (Nikolaev). **Raising of efficiency of thermochemical heat recovery in combined power plant**
23. A.N. RADCHENKO, A.V. HRYCH, A.Y. PRYADKO, YU.A. DOLHANOV (Nikolaev). **The accumulation and utilization of a condensate during the cooling of cyclic air in a gas-reciprocating engine as a component of trigeneration power plant used for autonomous power supply**
24. A.N. RADCHENKO, A.V. HRYCH, L. BOKHDAL, I.P. YESIN (Nikolaev). **Enhancement of the re-cooling system efficiency of gas-reciprocating engine.**
25. A.N. RADCHENKO, A.A. STAKHEL, YU.H. SHCHERBAK (Nikolaev). **Cooling of cycle air by an ejector thermotransformer in a low speed marine diesel**
26. D.V. KONOVALOV, A.O. DZHURYNS'KA (Kherson). **Fundamentals of a mathematical model of a termopresor cooling of a supercharging air for a marine ICE.**
27. D.V. KONOVALOV, O.V. SHCHEDROLOS'YEV, A.O. DZHURYNS'KA (Kherson). **Suitability of a termopresor unit usage for the ecological humidification of supercharging air in ICE**

Morning Meeting of Section

ENGINES AND POWER PLANTS FOR SPACE ROCKET ENGINEERING

September 7, 9⁰⁰ – 13⁰⁰

Chairmen: **N.M. Dron', Dr. Eng.** (DNU, Dnepropetrovsk);
A.V. Loyan, PhD. (KhAI, Kharkov)
Secretary: **A.N. Khaustova** (KhAI, Kharkov).

1. **N.M. DRON', P.G. HOROLSKY, L.G. DUBOVIK** (Dnepropetrovsk). **Evaluating power mass characteristics of active systems for space objects de-orbit from low earth orbits**
2. **S.A. SHEVCHENKO, A.L. GRIGORIEV, M.S. STEPANOV** (Dnepropetrovsk, Kiev). **Modelling of the Irc pneumatic starting system at taking into account the heat exchange between gas and cavity walls, as well as refinement of the forces acting on the regulator poppets**
3. **M.V. SYDORENKO, I.N. NIKISHCHENKO** (Dnepropetrovsk). **Feature of mathematical modeling for Irc schematics synthesis**
4. **I.G. BAKHMET** (Beijing). **Numerical simulation of flow controller dynamic characteristics**
5. **V.I. KONOKH, I.I. KALINICHENKO, I.N. GORDIETS, A.V. SHPAK** (Dnepropetrovsk). **Development of sealing elements for ensuring of pneumo-pump unit service life characteristics**
6. **G.K. BAKHMET, YE.V. GULIAYEVA, S.YU. NESTERENKO** (Kharkov). **The use of system analysis for EPT compensator-cathodes operation efficiency increase**
7. **A.I. TSAGLOV, A.V. LOYAN, N.N. KOSHELEV** (Kharkov). **Development of vacuum high temperature furnace with minimum temperature nonuniformity in working zone**
8. **M.Y. TITOV** (Kharkov). **Experimental stand and equipment for investigation of plasma parameters inside SPT channel**
9. **M.Y. TITOV, A.V. LOYAN** (Kharkov). **Measurements of probe characteristics in the discharge channel of stationary plasma thruster**
10. **A.N. KHAUSTOVA, V LOYAN** (Kharkov). **Choice justification of optical emission spectroscopy method for the SPT GDC ceramic erosion rate measurements**
11. **A.N. KHAUSTOVA, A.V. LOYAN, O.P. RIBALOV** (Kharkov). **Development of optical receiver for erosion rate measurements of gass discharge chamber external and internal ceramics separately**

12. A.N. KHAUSTOVA (Kharkov). **Investigation of SPT-70 plume by means of optical emission spectroscopy method with the scanning of plasma through collimator**
13. A.N. KHAUSTOVA (Kharkov). **Development of high resolution spectral complex for the stationary plasma thruster spectrum research**
14. A.I. TSAGLOV, A.V. LOYAN, O.P. RIBALOV (Kharkov). **Modernization of cathode-heater assembly for cathodes emitters testing stand**
15. A.V. LOYAN, A.I. TSAGLOV (Kharkov). **Results of micro mass flow cathode-neutralizer with operating current up to 300 ma development and testing**
16. M.Y. TITOV, A.V. LOYAN, E.I. ISCHENKO (Kharkov). **Comparison of gas flow rate measurements done by standart thermal flowmeter and volumetric flowmeter with extra accuracy**
17. A.V. LOYAN (Kharkov). **Possibility investigation of hall effect thruster direct electric power supplying (without intermediate converters) from solar battery**
18. K.V. BEZRUCHKO, S.V. SINCHENKO, A.L. AZARNOV, V.I. LAZNENKO, A.A. TIMCHENKO (Kharkov). **Comparison of methods of constructing mathematical models for studies of electrochemical batteries**
19. K. AGEEVA, K. TOYODA, M. CHO (Kitakyushu). **Cathodic arc engine for microsattellites**

Evening Meeting of Section

THEORY AND OPERATION PROCESSES

September 7, 14⁰⁰ – 19⁰⁰

Chairmen: **Yu.A. Krashanitsa, Dr. Eng.** (KhAI, Kharkov);
A.A. Prikhod'ko, Dr. Eng. (DGU, Dnepropetrovsk).
 Secretary: **A.L. Sushko.** (KhAFU, Kharkov).

1. Yu. KRASHANITSA **85 years in the ranks. Aerohydrogasdynamics: problems & prospects**
2. HUSHMANDI AMIR (Kharkov). **Triangulation method of bearing surfaces of aircraft systems**
3. YUE PENG **Aerodynamic characteristics system, corporal profile flow restriction viscous media**
4. S. AGEHEV (Kharkov). **Modelling the boundary layer in a thin layer of fluid motion.**

5. A.L. SUSHKO, V.G. LEBED, S.A. KALKAMANOV, E.Y. ILENKO (Kharkov). **Rational parameters of boundary layer suction on the upper surface wing**
6. O.A. PRYKHODKO, S.V. ALEKSEYENKO (Dnepropetrovsk). **Icing of airfoils: methodology of ice accretion**
7. V.P. SUBOTOVICH, A.Yu. YUDIN, S.A. TEMCHENKO (Kharkov). **Application of inverse aerodynamic problem for annular diffuser ducts optimization**
8. A.S. IMANOV, P.Sh. ABDULLAYEV (Baku). **Profiling of flat aviation shoulder –blades on base of differential equalization of curvature**
9. S.M. KABANNIK, V.A. TSYMBALYUK (Kiev). **Aerodynamic improvement of test rig for investigation of blade cascade at large incidence angles of subsonic flow**
10. S.M. KABANNIK (Kiev). **Implementation of the express method for evaluation of stability of flexural mode of GTE axial compressor blading against subsonic flutter**
11. A.N. MARKUSHIN, A.V. BAKLANOV, G.F. SALIMZYANOVA (Kazan). **The analysis of the combustion chamber pressure loss calculation method on the example of NK-8 aircraft engine**
12. M.A. TARASENKO A.I. TARASENKO (Nikolaev). **Compressor operation at the factionary modes of a single spool GTE and a GTE with free turbine in the conditions when temperature of ambient air changes**
13. V.S. CHYGRYN, F. MOHAMMADSADEGHI (Kharkov). **The investigation of unsteady flow origination in an axial compressor**
14. S.V. YERSHOV, V.A. YAKOVLEV (Kharkov). **About the choice of the grid resolution at calculations three-dimensional viscous gas flow in turbomachines**
15. J. SURWILO, P. LAMPART, M. SZYMANIAK (Gdansk). **Investigation of partial admission flow in an ORC turbine**
16. A. RUSANOV, P. LAMPART, R. RUSANOV (Gdansk, Kharkov). **Modelling of viscous turbulent flow in flow parts of turbines for orc plants with taking into account the real properties of the working fluid MDM on the basis of the modified Benedict-Webb-Rubin equation of state**
17. V.A. GRIGORIEV, D.S. KALABUHOV, V.M. RAD'KO (Samara). **Representation of the small-size power plants turbines characteristics**
18. M.R. MUSTAFAEV, Y.M. ASHUROV, R.S. AGHAVERDIYEV (Baku). **New method of grading of the back of the blades turbine bernoulli lemniscates**

19. A.V. RUSANOV, N.V. PASCHENKO, R.A. RUSANOV (Kharkov, Gdansk). **Modeling of viscous flows in flow parts of power turbines using the different equations of state**
20. A.V. RUSANOV, A.I. KOSIANOVA, D.Yu. KOSIANOV (Kharkov). **Research of stream flow structure in regulative compartment of the hpc of steam turbine K-325-23,5 with partial 0.4**

Evening Meeting of Section

TECHNOLOGY

September 7, 14⁰⁰ – 19⁰⁰

Chairmen: **N.E. Kalinina, Dr. Eng.** (DGU, Dnepropetrovsk);
V.F. Sorokin, Dr. Eng. (KhAI, Kharkov).
 Secretary: **E.V. Kombarova** (KhAI, Kharkov).

1. S.I. PLANKOVSKY, O.V. SHIPUL (Kharkov). **Mathematical modeling of edge finishing at thermal pulsing processing**
2. V.F. MOZGOVOJ, V.A. PANASENKO K.B. BALUCHOK, M.K. BIRUK (Zaporozhye). **Modern methodes of preliminary processing monowheels of turbine engins on machin CNC**
3. V.M. NESTERENKOV, L.A. KRAVCHUK, Y.A. ARHANGELSKII, I.A. PETRIK, Y.A. MARCHENKO (Zaporozhye, Kiev). **Development of the advanced manufacturing process for large case-shaped parts by method of electron beam welding (case study: MPC front casing shell)**
4. A.S. DANOV (Kharkov). **Definition of effort the press fitting of rivets with the preliminary elasto-plastic tightness**
5. A.S. DANOV (Kharkov). **Setting the parameters of high resource joints by highly durable rivets with compensators and restrictive elements**
6. G.V. SNIZHNOI, V.N. SAZHNEV, V.E. OL'SHANETSKY (Zaporozhye). **Influence of chemical components on mechanical and magnetic properties manganese steels**
7. N.P. SINYAEVA (Zaporozhye). **Determination of alloying elements in the alloyson the basis of nickel by atomic absorption method with continuous high-level radiation source**
8. I.A. PETRIK, A.V. OVCHINNIKOV, A.G. SELIVERSTOV (Zaporozhye). **Developing powders of titanium alloys for additive technologies as applied to gas turbine engine parts**

9. A.V. OVCHINNIKOV (Zaporozhye). **Development of an integrated import-substituting technology for compressor blades blank**
10. E.V. TSEGEL'NIK, P.I. MEL'NICHUK, I.I. GOLOVIN (Kharkov). **Laser treatment prospects for repair of GTE**
11. D.V. PAVLENKO. V.Yu KOTSJUBA., S.N. PAHOLKA (Zaporozhye). **The formation of the submicrocrystalline structure in the serial and perspective of materials for the compressor blade of gas turbine engine**
12. N.E. KALININA, A.E. YUKHYMENKO, V.T. KALININ, D.R. PAVLOV, M.V. GREKOVA (Dnepropetrovsk). **Influence of modification on mechanical properties superalloys**
13. S.V. GAYDUK, T.V. TYKHOMYROVA (Zaporozhye). **Application of analitic methods to calculate of chemical composition γ - , γ' - phases and parametries phase stabilities casting Ni-based superalloys**
14. T.V. TYKHOMYROVA S.V. GAYDUK, S.B. BELIKOV (Zaporozhye). **Research of the influence nikel on phase structure and characteristic temperatures of the cobalt alloy by method CALPHAD**
15. N.A. LYSENKO, V.V. KLOCHIHIN, V.V. NAUMYK (Zaporozhye). **The structure and properties of hollow castings of nickel alloy turbine blades after hot isostatic pressing**

September 8

Morning Meeting of Section

AUTOMATIC CONTROL SYSTEMS AND DIAGNOSTICS

September 8, 9⁰⁰ – 13⁰⁰

Chairmen: **S.A. Dmytriev, Dr. Eng.** (NAU, Kiev);
 R.A. Varbanets, Dr. Eng. (ONMU, Odessa).
 Secretary: **R.L. Zerenskyi** (KhAI, Kharkov).

1. F.F. SIRENKO, S.V. YEPIFANOV, P.D. ZHEMANYUK, S.A. NECHUNAYEV (Kharkov, Zaporozhye). **Synthesis technic of a torque measuring algorithm for a torque measuring unit, which implements the phase metering principle, in conditions of limited information about the properties of unit**
2. V.U. IGNATKIN, A.V. TOMASHEVSKYI (Dneprodzerzhinsk, Zaporozhye). **Correction for calibration interval of measuring equipment at their current technical states**

3. A.I. IVASHCHENKO, G.F. TSALIMOV, V.V. NERUBASSKIY, N.N. LOPUNOVA (Odessa). **Automation of technological process checks electrical harnesses GTE of the aircraft**
4. S.M. SEMCHYSHYN, V.A. KATCHURA (Odessa, Zaporozhye). **Portable automated parameters recorder – extension of functional capabilities**
5. Yu.A. KUZNETSOVA (Moscow, Kharkov). **Information technology of controlling algorithms visualizers synthesis in supervisory control and data acquisition systems**
6. JOZEF POLACEK, LUBOS VARGOVCIK (Czech Republic). **A mathematical model of a small class turboprop engine**
7. R.L. ZELENSKYI, S.V. YEPIFANOV, Ye.V. MARTCENIUK, V.V. BOIKO (Kharkov). **Simulation of a turbine disk radial size under the mechanical loading**
8. E.A. KONONYKHIN, S.V. YEPIFANOV, E.V. PAVLYUK (Kharkov). **Aircraft engine actuators control system based on fuzzy logic**
9. V.S. MIKHAILENKO, R.A. VARBANETS (Odessa). **Identification of thermal objects in adaptive control system using neuro-fuzzy networks**
10. I. IGUMENTSEV, O. PROKOPENKO (Kharkov). **Magnetic energy and electric power gyro with charge**
11. D.I. VOLKOV, V.P. KOMAROV, V.V. NERUBASKIY (Odessa). **Turbine engine modern electronic control system research and development using software simulation**
12. A.G. BURYACHENKO, V.M. GRUDINKIN, D.S. BURUNOV (Odessa). **Test bench-imitator of engine AI-450M for engine regulator testing. Metrological security and test bench verification**
13. G.F. TSALIMOV, S.V. KOZURA, E.E. VASKO (Odessa). **Development of starter-generators control unit for starting system of aviation engines**
14. V.F. MYRHOROD V.V. NERUBASSKY (Odessa). **Methods of free turbine rotational speed dips fending in conditions when loading of a helicopter lift rotor is changed.**
15. S.I. SUKHOVII (Kharkov). **Fuel distributor control loop accuracy increasing by means of constant pressure drop valve dynamics accounting**
16. S.Ya. YACENKO, N.F. SIDORENKO, V.S. MIKHEEV, N.P. YEVSUKOV, I.Ye. KITAJCHUK, V.N. DASHKIYEV (Kharkov). **Integrated approach to solve a multi-criteria problem of sophisticated technical object electronical governing system development**
17. A.S. GOLTSOV (Kharkov). **Analysis of the power control algorithm and method of combinatorial dependence of kaplan turbine**

18. **A.S. KULIK, S.N. PASICHNIK (Kharkov). Fractional order transfer function usage for synthesis of the automatic positioning system of operating mode of vortical power separator**
19. **A.P. KUKOVINETS (Zaporozhye). The impact of automatic control on the vibrational state of the turbo-propeller engines**

Morning Meeting of Section

PISTON COMBUSTION ENGINES

September 8, 9⁰⁰ – 13⁰⁰

Chairmen: **A.F. Holovchuk, Dr. Eng.** (DNU, Dnepropetrovsk);
A.V. Grytsyuk, Dr. Eng. (HKBD, Kharkov);
M.R. Tkach, Dr. Eng. (NUSh, Nikolaev).
 Secretary: **A.V. Shain (KhAI, Kharkov).**

1. **A. A. PROKHORENKO (Kharkov). Mathematical model of the automatic control system of diesel engine with common rail system in the state space**
2. **A.F. HOLOVCHUK, Y.I. HABLIYEL (Dnepropetrovsk, Lvov). Electronic measurement and diagnostic system for research of automobile and tractor engines**
3. **A.F. HOLOVCHUK, Y.I. HABLIYEL (Dnepropetrovsk, Lvov). Electronic control D-240 diesel static and dynamic characteristics**
4. **A.V. GRITSUK, F.I. ABRAMCHUK, V.K. SAVICH, A.N. VRUBLEVSKIY, I.S. REVELYUK (Kharkov). Justification of damping method selection of crankshaft torsional vibration of 6DTNA high-rpm diesel at the stage of its design**
5. **R.A. VARBANETS, E.V. BELOUSOV, V.P. SAVCHUK, B.I. KYRNATS (Odessa). Determination of working process parameters and diagnosis of medium-speed main engines of m/v "GREIFSWALD"**
6. **R.V. KOLODNYTSKA (Zhytomyr). Biobiesel fuel spray penetration modelling**
7. **O.M. KLYMENKO, V.O. PYL'OV, S.V. OBOZNYJ, O.M. LOMAKIN (Kharkov). Experimental study of the possibility of improvement ecological and economic indicators and reliability of transport diesel engines**
8. **I.V. PARSADANOV, M.D. SAKHNENKO, M.V. VED', I.M. KARIAGIN, V.O. KHYZHNIYAK, D.S. ANDROSHHUK (Kharkov). The research of the diesel engine with a catalytic coating on the surface of the combustion chamber**

9. A.A. LISOVAL, I.V. PARSADANOV, Yu.A. SVISTUN, I.V. RYKOVA (Kharkov). **Tests of neutralizer on efficiency of cleaning of exhaust gases of engine with a force lighting**
10. A.P. POLIVIANCHUK, M.F. SMYRNYI, E.A. HOLKINA, Y.I. SHEKHOVTSOV (Kharkov, Severodonetsk). **Analysis method of dynamic measurement of the concentration of particulate matter in the exhaust gas of diesel engines with optoelectrically sensing element**
11. I.V. PARSADANOV, A.P. POLIVIANCHUK, E.A. HOLKINA, E.A. GRECHISHKINA (Kharkov, Severodonetsk). **Research emissions of particulate matter with exhaust gases to unsteady operation modes of automotive diesel engines**
12. A.F. GOLOVCHUK, A.Y. SOSIKOV, O.V. DUDARENKO (Dnepropetrovsk, Zaporozhye). **Gas distribution mechanism of free piston engine-hydraulic pump**
13. A.V. BILOGUB (Kharkov). **Qualifying the stressing for the analysis of piston skirt**
14. V.N. DOTSENKO, A.V. BILOGUB, I.N. MOSKALENKO (Kharkov, Zaporozhye). **Method of the piston shape development**
15. O.V. BILOGUB, R.Ya. ALPERIN, A.V. SHAIN (Kharkov). **Optimisation of air-cooled piston engine for UAVS**
16. V.G. ZARENBIN, N.I. MISHCHENKO, V.V. BOGOMOLOV (Dnepropetrovsk, Krasnoarmeisk). **The calculation of the temperature in multiple contact in transient conditions modes of friction**
17. A. MARCHENKO, A. OSETROV, S. KRAVCHENKO (Kharkov). **Optimization of parameters prechamber stationary gas engines when operating on the low calorie gas fuels**
18. A.P. MARCHENKO, V.V. PYLYOV (Kharkov). **Modeling of nonstationary high-frequency temperature state of internal combustion engine piston with a coated combustion chamber surface**
19. V.A. PYLYOV, S.A. KRAVCHENKO, I.A. NESTERENKO (Kharkov). **Setting the heat transfer boundary conditions in the area of piston rings piston diesel vehicle in the initial stages of design**
20. V.A. PYLYOV, R. ARYAN (Kharkov). **Evaluation thermal stress piston taking into account its constructive especially in the zone edges combustion chamber**
21. L.P. KLIMENKO, V.I. ANDREEV L.M. DYKHTA, (Nikolaev). **The thermal processes' mathematical simulation during casting into metal mould of the short hollow cylindrical casting**
22. L.P. KLIMENKO, A.E. GOLOVKO, L.M. DYKHTA, V.I. ANDREEV, S.N. SOLOVYOV (Nikolaev). **Study parameters recovery inner surfaces of cylinder line**

Evening Meeting of Section

TECHNOLOGY

September 8, 14⁰⁰ – 19⁰⁰

Chairmen: **A.Ya. Kachan, Dr. Eng.** (ZNTU, Zaporozhye);
A.I. Dolmatov, Dr. Eng. (KhAI, Kharkov).
Secretary: **E.A. Krizhevets** (KhAI, Kharkov).

1. **A. PEDASH, G. BYALIK, E. TZIVIRKO** (Zaporozhye). **Increasing of the ceramic casting mould thermal conductivity with cobalt aluminate**
2. **Yu.V. BRUSILO, A.A.TAMARGAZIN** (Kiev). **Optimization technology of rework engine parts by the electric arc spraying**
3. **E.G. SOTNIKOV, Z.V. LIHOVITSER, V.L. GRESHTA, A.V. KLIMOV, D.V. TKACH** (Zaporozhye). **Development of a thermal barrier coating for details turbine engine, workers at high temperatures**
4. **Yu. YEVDOKYMENKO, V. KYSIL, G. FROLOV, S. BUCHAKOV** (Kiev). **Two-stage configuration burner device for high velocity air liquid-fuel spraying**
5. **Yu. SYSOIEV** (Kharkov). **High performance method create of gas mixtures for ion-plasma technologies**
6. **Yu. SYSOIEV, Yu. SHIROKIY** (Kharkov). **The use of pulsed plasma flows to form a coatings with desired properties**
7. **V.Yu. GRANIN, V.V. TRETYAK, S.V. HUDYAKOV, V.D. SOTNIKOV, N.F. SAVCHENKO** (Kharkov). **Features of using SPRUT-technologies to develop advanced design and technologies**
8. **V.V. TRETYAK** (Kharkov). **The implementation of the classification phase in the system SPRUT to develop new processes of pulse technologies**
9. **V.V. TRETYAK, A.V. ONOPCHENKO, A.S. FEDOROVA** (Kharkov). **The possibility of interactive software systems for the design pulse processes to manufacture complex parts by addressing and synthesis**
10. **V.F. SOROKIN, E.V. KOMBAROVA, V.D. SOTNIKOV** (Kharkov). **Creating smooth law changes jerk in the interval of acceleration/deceleration in high-speed machining on CNC equipment**
11. **V.F. SOROKIN V.V. KOMBAROV** (Kharkov). **An effect of the control cycle stability on an accuracy of the CNC machine actuators trajectory**

12. E.V. KOMBAROVA (Kharkov). **Feedrates planning method for CNC system with using S-shaped acceleration/deceleration laws**
13. V.E. ZAITCEV, O.V. KOMBAROVA, K.S. TKACHENKO (Kharkov). **Research of high-speed machining boundary regimes for duralumin alloys**
14. E.A. KRYZHIVETS, O.B. KIVIRENKO, V.V. KOMBAROV (Kharkov). **The task formulation of equipment with CNC system development for shaped fiberglass tubes manufacturing**
15. K.V. KUZNETSOV, V.V. KOMBAROV (Kharkov). **Experimental definition of high-strength steels rough high-speed machining regimes**
16. V.F. SOROKIN, V.V. KOMBAROV, I.A. TERNYUK (Kharkov). **The optimal tool path computation in the CNC system spline interpolator by “criterion - accuracy”**

September 9

Morning Meeting of Section

AUTOMATIC CONTROL SYSTEMS AND DIAGNOSTICS

September 9, 9⁰⁰ – 13⁰⁰

Chairmen: **S.V. Yepifanov, Dr. Eng.** (KhAI, Kharkov);
A.N. Reva, Dr. Eng. (NAU, Kiev).
 Secretary: **V.V. Nerubasskiy** (Element, Odessa).

1. A. SUMTSOV, K. SZURMAN (Brno, Czech Republic). **Model based design approach applied on the development of the engine monitoring module**
2. S.V. YEPIFANOV, B.A. SCHERBAN, N.D. BAGAUTDINOV, Y.V. CHERKASOV (Kharkov, Zaporozhye). **Turbofan technical condition forecast**
3. V.V. NERUBASSKIY (Odessa). **Using Mahalanobis-Taguchi system in tasks related to the turbine engine fault recognition**
4. V.M. MIRGOROD (Odessa). **Evaluation of trend statistics efficiency of the cumulative sums in non-Gaussian distributions of reference data terms**
5. V.Ye. STRILETS, M.L. UGRYUMOV, K.M. UGRYUMOVA, I.O. TROFIMOVA (Kharkov). **Method of controlled variables set synthesis for faults diagnostic of turbojet engine under input data uncertainty**

6. A.D. SIVRI (Kharkov). **The confidence analysis of the GTE gas path state identification**
7. S.V. ENCHEV, S.S. TOVKACH (Kiev). **The prediction of a vibration state of aircraft engines basing the parameters of Wavelet transform**
8. A.V. PAPCHONKOV (Zaporozhye). **Efficiency of spectral methods of diagnostic check of the technical condition of tooth gearings turbo-engines**
9. I.M. GVOZDEVA (Odessa). **The directional characteristics optimization of acoustic sensors systems**
10. V.N. ZHURAVLEV (Zaporozhye). **Phenomenological model of process of radiation of energy of the sound in the course of detonation combustion**
11. S.A. BORZOV (Zaporozhye). **Spectral-correlation method estimation of effective work the combustion chamber of gas turbine engine**
12. V.I. SVIRIDOV A.A. ANDREW (Kherson). **Rolling bearings and plain bearings vibration diagnostics**
13. A.N. REVA I.M. USTIMENKO A.P. PLYASOVSKIY (Kiev, Krasnoyarsk, St. Petersburg). **Synthesis of activity and cybernetic analysis of information load of the air traffic controller in conditions of high air traffic intensity**
14. A.N. REVA, V.A. SHULGIN, P.Sh. MUKHTAROV, B.M.MIRZAYEV (Kiev, Kirovograd, Baku). **Illegible measure of hazard identification of separation norm of aircrafts by air traffic controllers**
15. O.M. REVA, P.Sh. MUKHTAROV, B.M. MIRZOYEV, V.Z. SULTANOV (Kiev, Baku). **Integrative model of assessment air traffic controllers to violation of the separation in the airspace**
16. O.M. REVA, D.Yu. BIRYUKOV, Sh.Sh. NASYROV (Kiev, Kirovograd, Baku). **Formation of requirements to the ARO\AIS employee's exercise machine**
17. A.N. REVA, S.P. BORSUK (Kiev). **Pilot analysis of air traffic controllers desirability levels on the specter of the horizontal air space flight separation norms**
18. KUDKHAIR ABED TAMER (Kharkov). **Construction and adaptation basis of prototypes the structured objects**
19. A.A. MAMEDOV (Kharkov). **Separation the patterns of implicit dependences on the basis of inexact comparing of predicate models**
20. Y.S. NOVIKOV (Kharkov). **Sequence of logical operations in the construction of path transformation couple graphs reflects the explicit knowledge**

21. L.V. SHABANOVA-KUSHNARENKO (Kharkov). **The recursive method of creation of the hierarchical predicate process model on the basis of the predicate tree**

Evening Meeting of Section

THEORY AND OPERATION PROCESSES

September 9, 14⁰⁰ – 19⁰⁰

Chairmen: **A.V. Rusanov, Dr. Eng.** (IPMash, Kharkov);
V.P. Subbotovich, Dr. Eng. (NTU «KhPI», Kharkov).
Secretary: **D.Yu. Kos'yanov** (IPMash, Kharkov).

1. D.A. DOLMATOV (Kharkov). **Comparative analysis of high temperature flames physical and chemical parameters**
2. D.A. DOLMATOV, A.V. KUKURUDZA, M. HADZHIVAND (Kharkov). **Role of linear and spider-web hydrocarbon atomization in a flame front formation**
3. D.A. DOLMATOV, N.V. KONONENKO, A.V. KUKURUDZA (Kharkov). **Collapse and burning out of a kerosene drops in the conditions of an increased amount of atomic oxygen and ozone**
4. D.A. DOLMATOV (Kharkov). **The effect of a radical consumption increasing in case of a SHF charge frequency change**
5. D.A. DOLMATOV (Kharkov). **Low temperature NO_x generation in electrochemical flame**
6. MASOUD HAJIVAND (Kharkov). **Effect of axial swirler parameters on a methane-air combustion characteristics and formation of nitrogen oxide**
7. MASOUD HAJIVAND, D. A. DOLMATOV. (Kharkov). **Design of dilution holes on a gas turbine can-combustor and their effects on emission characteristics**
8. A. SCHUKIN, F.M. VALIEV, O.V. DUNAI (Kazan). **Specific features of a gaseous toxic emission generation in a two phase fuel combustion in the GTE.**
9. V. I. TIMOSHENKO, A. Ye. DESHKO (Dnepropetrovsk). **On the rational implementation of processes of mixing and combustion within ramjet combustion chamber**
10. A.V. SMIRNOV, A.M. SHCHEDRENKOV, O.M. SHCHERBAKOV, A.YU. KARUTSKIY, V.P. PARAFIYNYK (Sumy). **Numerical investigation of gas flow in the exhaust system of the natural gas turbo-compressor package driven by gas-turbine engine DU80L1**
11. F. FORGHANY, A. ASDOLLAHI-GHOHIEH, M. TAIEBI-RAHNI (Tehran). **Numerical investigation of the fluidic injection angle effects on thrust vectoring**

12. F. FORGHANY, M. TAIEBI-RAHNI, A. ASDOLLAHI-GHOHIEH (Tehran). **Numerical study of the aerodynamic effects on fluidic thrust vectoring**
13. V.A. SHKABURA (Kharkov). **Of analysis of turbine zone and compressor zone of turbo-compressor with general impeller for gas turbine engines**
14. B.SH. MAMEDOV (Zaporozhye). **Unified theory of propulsive agent for continuous flows. Thrust equation, flight efficiency of rocket engines**
15. B.SH. MAMEDOV, P.K. SHTANYKO (Zaporozhye). **Comparative analyze of formulas of thrust and flying (thrust) efficiency calculation of bypass turbojet engines according the modern theory of air-jet engines and single theory of continuous flow propulsion**
16. B.SH. MAMEDOV, P.K. SHTANYKO (Zaporozhye). **The single theory of continuous flow propulsion. Formulas of thrust and flying (thrust) efficiency of flow tube, for example, the water nose, as propulsion, calculation**
17. B.SH. MAMEDOV, P.K. SHTANYKO (Zaporozhye). **The main technical progress directions in air-jet engine design branch, which are worked out by the “single theory of continuous flow propulsions”**
18. B.SH. MAMEDOV, P.K. SHTANYKO (Zaporozhye). **The single theory of continuous flow propulsion. Pressure increasing degree of air-jet engine’s axial compressors calculation while gas flow kinetic energy transforms into potential pressure energy**
19. A.N. RADCHENKO, S.A. KANTOR (Nikolaev). **Methodological approach to the rational design of a combined waste heat air cooling system at an inlet.**
20. I.V. KALINICHENKO, A.A. ANDREEV V.I. SVIRIDOV (Kherson). **Mathematical and computer models of the operational cycle analysis of the heat pump steam supply system**
21. V.P. PARAFEYNIK S.A. PRILIPKO I.N. TERTYISHNYIY (Sumy). **Methodological basics of an efficiency analysis of gas turbine gas transfer units with the multiple section centrifugal compressors**
22. F.G. SOROGIN, P.D. ZHEMANYUK, V.P. TROFIMOV, Y.V. SHAKHOV, I.I. PETUKHOV, A.V. MINYACHIKHIN (Zaporozhye, Kharkov). **Experimental investigation of the gas turbine unit cyclic air spray cooling system**
23. V.V. KOROBKO (Nikolaev). **Analysis of opportunities for improvements of thermoacoustic heat engines through the heat exchange processes rationalization**
24. Yu.A. ZHULAY (Dnepropetrovsk). **Theoretical evaluation of efficiency factor of vortex heat generator**

PLENARY MEETING

September 9, 18⁰⁰ – 19⁰⁰

- 1. Reports of section chairmen about the meetings.**
- 2. Summarizing the work of XX International Congress of Propulsion Engineering.**
- 3. Approving the Congress resolution.**

**Close
of the XX-th International Congress of Propulsion Engineering.**