Good day ,

I am looking position for Stress&Thermal&EMag engineer (33 years of Stress/thermal simulations ,PhD)

## I perform stress/thermal/Emag simulations :

- stress & thermal simulations, including hyperelastic materials (rubber), polymers, composites
  - \*\*\* have experience in numerical modeling of stamping/metalforming processes
- multibody dynamics
- rotor dynamics
- thermal simulations
- electromagnetic problems (low frequency range)
- electrostatic simulations
- piezoelectric and thermoelectric effects

https://www.linkedin.com/in/valeri-anpilovv-128988163/

My son is looking position for CFD/thermal engineer (31 years old, 10 years of CFD/thermal simulations ,PhD)

https://www.linkedin.com/in/sergey-anpilov-20131485/

Regards Valery Anpilov

Private: ValeryAnpilov@mail.ru

Skype: valery.anpilov

Cell phone: +7.903.797-85-61

## **Cirriculum Vitae**

## https://www.linkedin.com/in/valeri-anpilovv-128988163/



Valery Nikolaevich
01 May 1962
Russian
<ul> <li>1992-1995 – PhD , Leningradsky state university.         (Numerical simulation of propagation phenomena of strong shock waves in heterogeneous elastic-plastic media)</li> <li>1981-1986 – Leningradsky state university.         Department: Applied mathematics</li> </ul>
<ul> <li>1981-1986 – Engineering academy.         Specialization: Stress simulations.         Probation and stress simulation of underground constructions for the effects of waves from explosions of conventional and nuclear munitions.     </li> <li>1978-1981 – Engineering college.         Specialization: Stress simulations. Diploma with honours.     </li> </ul>
From January 2019 – present: Krets Consulting (Orebro, Sweden) (https://krets.nu/hem/)  Stress&thermal&EMag engineer-consultant  Stress & thermal & Emag simulations
2008 – present :Engineering company «CAE-Services»  http://cae-services.net/ Chief of stress department  Stress/thermal simulations:  • Stress/thermal simulations of the overall stress-strain state of piping systems made from both metal and non-metal (including composites) materials, for given values of temperature, pressure, weight of the internal environment, self-weight of the structure, taking into account the kinematic conditions, as well as the friction in the bearings.  Material of pipes, vessels and tanks:  - steel - plastic/polimer - rubber - composities.  • Seismic resistance of tanks and pressure vessels, including partially filled with liquid coupled Eulerian-Lagrangian (CEL) analysis was used for fluid-structure interaction.  • Stress simulation taking into account the hyperelastic properties of gaskets from rubbers and polymers.  • Stress simulations with composites (small experience).

Numerical simulation of stamping processes.

- Stress simulations of lift's constructions under "operational" and "emergency" loads, in particular:
  - emergency lift stops;
  - lift containing passengers falling onto shock absorbers.
- Stress simulations of the container in which the electronic units and diesel generators of backup electricity are located to the effect of static and dynamic (seismic) loads.
- Stress simulations of the parts / assemblies of various metalworking machines.
- Stress simulations of a metal-ceramic tube (heat exchanger element of a nuclear reactor) for various internal pressure and temperature.
- Stress simulations (static and dynamics) for electronic, electrical and optical devices under structural and thermal loads.
- Multibody Dynamics Modeling (COMSOL from 2017)
- Rotor Dynamics Modeling (COMSOL from 2018)
- Analysis of Thermoelectric Phenomena with COMSOL (from 2017)
- Piezoelectric Simulations with COMSOL (from 2017)

### 1995 – 2008 –office of German company CAD-FEM GmbH in Russia

<u>www.cadfem.de</u> (Technical Director – Chief stress department)

#### Stress/thermal simulations for electronic industry:

- Stress simulations (static and dynamics) for electronic, electrical and optical devices under structural and thermal loads.
- Determination of the stresses in microcircuits from thermal loads.
- Numerical modeling of technological operations in the manufacture of metal parts (stamping)
   to use deformed geometry and calculation results (residual stresses, residual deformations, viscous fracture) in further stress simulations.
- Stress simulation in order to obtain data on the strength of the soldering of electronic parts on the boards.
- Stress simulations of the electrical connectors for determining the degree of their reliability, as well as the contact areas at different temperatures.
- Linear dynamics, frequency and spectral simulations.
- Determination of the optimal damping system (vibration isolation, shock absorber) for individual electronic components, boards and electronic devices.
- Stress simulations with respect to hyperelastic (hyperelastic, hyperfoam) properties of gaskets and shock absorbers made of rubbers and polymers.
- Stress simulations of plastics (polymers) parts with respect to viscoelasticity and viscoplasticity.
- small experience with stress simulations of reinforced polymeric composites.

# 1986–1995 Research Institute Stress engineer

 Coupled stress / thermal simulations - propagation of explosion shock waves in elastoplastic media (soild) and interaction of shock waves with above-ground and underground structures, pipelines, tanks.

- Determination of parameters of motion underground constructions exposed to explosion shock waves.
- Stress simulations of steel and/or concrete building constructions.
- Stress simulations of shock absorbing systems for building constructions containing equipment and personnel.

#### Professional skills:

#### Software:

- COMSOL (2017-present)
- ABAQUS/Standard, ABAQUS/Explicit, ABAQUS/Implicit, ABAQUS/CAE (2007-present)
- ANSYS (Structural, Thermal, Workbench, Fatigue, DesignExplorer) (1986-2007)
- ANSA (2015-present)
- HyperMesh (2016-present)
- MCalibration (2016-present)
- AutoCAD (1997-present)
- SolidWorks (2001-present)
- MathCad

#### Specialization:

#### Stress & thermal & EMag simulations.

#### Equations states (material models) that I used performing stress / thermal simulations:

- Linear elasticity
- Porous elasticity
- Linear Viscoelasticity
- Creep
- Hypoelasticity
- Hyperelasticity (including Mullins effect, Hysteresis,
- Hyperfoam (Hyperelasticity in elastometric foams)
- Linear viscoelasticity
- Nonlinear Viscoelasticity
- Permanent set in rubberlike materials
- Metal plasticity
- Classical metal plasticity
- Models for metals subjected to cyclic loading
- Annealing or melting
- Johnson-Cook plasticity
- Dynamic failure models
- Porous metal plasticity
- · Cast iron plasticity
- Deformation plasticity
- Damage and failure for ductile metals
- Damage (initiation and for evolution) and failure ductile materials in low-cycle fatigue analysis
- Extended Drucker-Prager models
- Modified Drucker-Prager/Cap model
- Mohr-Coulomb plasticity
- Critical state (clay) plasticity model
- Crushable foam plasticity models
- Concrete
- Concrete smeared cracking
- Cracking model for concrete
- Concrete damaged plasticity
- Damage and failure for fiber-reinforced composites

Foreign languages:	English (reading technical documentation, speaking proficiency - intermediate)
Marital status:	Married. Son – 33 years old – PhD, Lomonosov's Moscow State University, Computational mathematics and cybernetics department.
Cell phone:	+7.903.797-85-61
Contacts:	e-mail: <u>v-moscow@yandex.ru</u> ICQ: 413740236 Skype: valery.anpilov

## Curriculum Vitae

Sergey Valerievich Anpilov first name second name surname

E-mail: svanpilov@inbox.ru Mob.Phone: +7 (963) 977-38-43

ICQ 489884802 Skype: cwl.net

https://www.linkedin.com/in/sergey-anpilov-20131485/



AGE	28 years old
NATIONALITY	Russian
EDUCATION	<ul> <li>2008 – graduated from Lomonosov's Moscow State University www.msu.ru/en/ Computational Methods Department, with «applied mathematics and cybernetics» diploma.</li> <li>2008 – entered a post-graduate studies program at Lomonosov Moscow State University. Dissertation work is related to modeling of reduction cell – magneto-hydrodynamic stability, single – and multiphase approach (Navier-Stokes and Maxwell systems of equations coupling).</li> <li>2011 – finished post-graduate studies with Ph.D degree.</li> </ul>
PROFESSIONAL SKILLS:	
COMPUTERS:	
Software:	AutoCAD Inventor, PRO/Engineer (Creo), SolidWorks, Altair HyperWorks Desktop; Star-CCM+, ANSYS/CFX, ANSYS/Fluent, IcePak, COMSOL; Microsoft Visual Studio, Embarcadero RAD Studio (Borland Delphi);
Programming:	Delphi, C, C++, Fortran, Oberon, Modula;
WORKING EXPERIENCE:	<ul> <li>From Aug. 2008 to present time - engineer at CAE-Services LLC (<a href="http://cae-services.ru">http://cae-services.ru</a>);</li> <li>From Nov. 2011 to present time - Senior Researcher at All Russian Thermal Engineering Institute (<a href="http://vti.ru/en">http://vti.ru/en</a>);</li> <li>From Dec. 2011 to present time - junior research associate at Lomonosov's Moscow State University - Department of Computational Mathematics and Cybernetics (<a href="http://www.msu.ru/en">http://www.msu.ru/en</a>);</li> <li>From Aug. 2012 to Oct. 2012 - CFD-engineer at "Oil And Gas Engineering Company - All-Union Research Institute for Construction and Operation of Pipelines, Enterprises of Fuel and Energy Sector. "(<a href="http://en.vniist.ru/corp/129.htm">http://en.vniist.ru/corp/129.htm</a>);</li> <li>Computer modeling of fluid flows with related physical phenomena: free surface, coupled heat and mass transfer, condensation (on solid surface and/or liquid jet streams);</li> </ul>
FOREIGN LANGUAGES:	English (fluent), French (basic), German(basic), Irish (basic)
MARITAL STATUS:	Single
INTERESTS & HOBBY:	Ninjutsu, hydroponic flowers cultivation, history, mythology, celtic languages, tea ceremony