

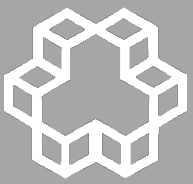
# Achievements and Challenges: K. N. Toosi University of Technology collaborations with Russian Universities 2015-2018

**A. Khaki Sedigh**

**Fourth Rectors' Forum for Top Iranian and Russian universities**

**24<sup>th</sup> November 2018**

**Kish Island**



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# Commencement of the join academic cooperations following the first forum in 2015

Exchange Three signed Agreements  
(MSU, MAI & MISiS)

September 2016/  
Moscow



Roundtable on Joint  
Scientific  
Collaborations

June 2016/Moscow



Establishing Lasting  
Relationships with  
MSU, MAI, and MISiS

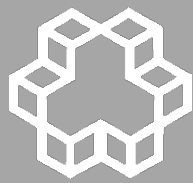
April 2017/ Tehran



Developing Academic  
Cooperation with MAI  
and Signing the MoU  
with MIPT

June 2017/ Moscow





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# The Recent joint scientific collaborations

Following up the MSc  
Student Admission at  
RUDN

by

Prof. Alexander Grabilnikov

February 2018/  
Moscow

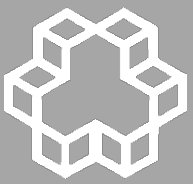
Signing the MoU and  
in addition the  
Agreement on  
Implementation of  
Joint Educational  
Master's Programs

With RUDN  
May 2018/ Moscow

Promoting Scientific  
Collaborations with  
RUDN

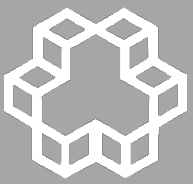
September 2018/  
Tehran





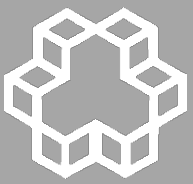
MOSCOW STATE  
UNIVERSITY,  
INSTITUTE OF  
MECHANICS  
(MSU)

- Signing the MoU.
- Two PhD students were sent to MSU. (October 2016)
- Discussion for joint research projects (in progress).
- Signing an agreement for the 9 months sabbatical leave of PhD Students and summer schools.



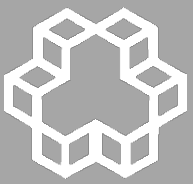
**NATIONAL  
UNIVERSITY OF  
SCIENCE AND  
TECHNOLOGY  
(MISiS)**

- Signing the MoU.
- Signing an agreement for short-term course for PhD students in “Modern Methods of Materials Research” at MISiS.
- The First Short-Term visits for 6 PhD Students at MISiS October 2016.
- **Signing an agreement between MISiS and faculty of Materials Science for seven mutual research projects.**
- **Planning for a Joint Masters program entitled: “Advanced Materials Science and Technology”**



MOSCOW AVIATION  
INSTITUTE (MAI)

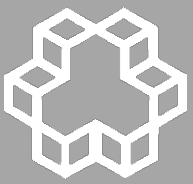
- Signing an agreement for two joint Master Programs entitled: “Aerospace Engineering” and “Jet Engine Advanced Manufacturing Technologies”.
- Finalizing the Study Plans and students selected.
- Planning for Student Admission in July 2016.
- MAI has refrained from Starting the Programs in 2017.



PEOPLES' FRIENDSHIP  
UNIVERSITY OF  
RUSSIA  
(RUDN)

- Signing the MoU
- Finalizing the two joint MSc programs in the fields of “Aerospace Material and Structures” and “Small Satellite Design”
- Recruiting 5 aerospace students at RUDN in 2017-2018.
- The Admission of 5 aerospace material sciences students for the second joint master’s program in 2018-2019.

# Workshops and scientific lectures in Tehran



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## Workshops:

**Stress Analysis of the Rotor and Stator Assemblies of Turbine Gas Generators Used in Modern Civil Turbofan Engines**

**Prof: Valery Nesterenko**

**The 16<sup>th</sup> International Conference of The Iranian Aerospace Society/March 2017**

## Scientific lectures:

**Unsteady Flow Phenomena and Numerical Modeling of Discrete Components of Pressure Pulsation in Centrifugal Pumps**

**Prof: Sergey Timushev**

**The 16<sup>th</sup> International Conference of The Iranian Aerospace Society/March 2017**

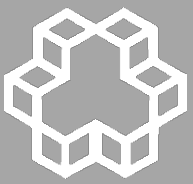
## Workshops:

**Friction Welding in Aviation Production**

**Prof: Alexy Boytsov**

**The 16<sup>th</sup> International Conference of The Iranian Aerospace Society/March 2017**

# Joint Research Project in progress



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Project Title: Numerical modeling of discrete components of pressure pulsation and noise spectra in bladed pumps

Project Code: 96003860

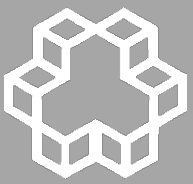
Iranian  
National  
Science  
Foundation  
(INSF)

Russian  
Foundation  
for Basic  
Research  
(RFBR)

Executor:  
Dr. Hasan  
Karimi

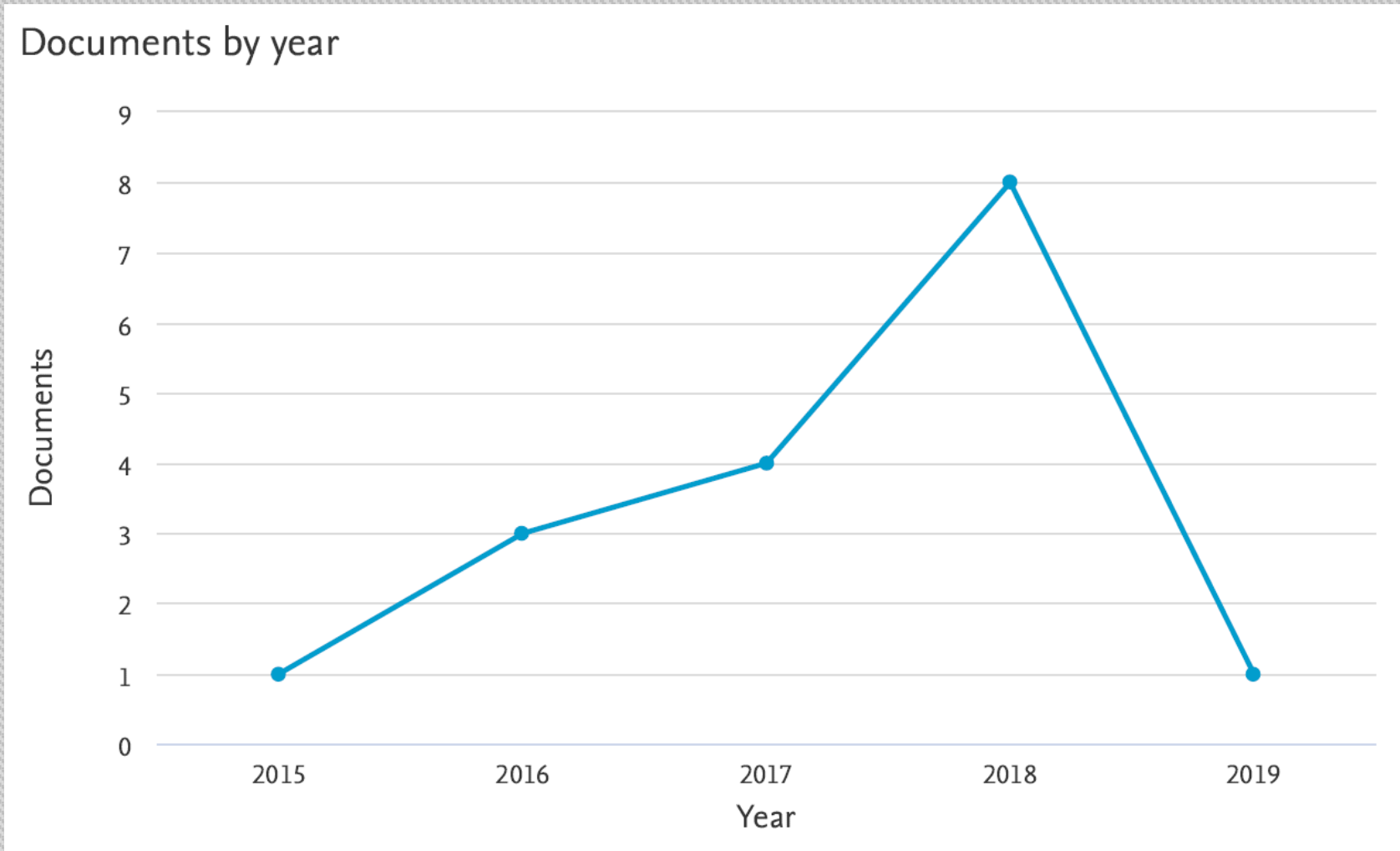
Collaborator:  
Dr. Sergey  
Timushev

# Joint research publications from the collaborations



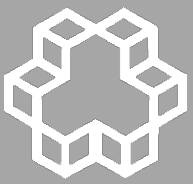
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## MSU

- To commence a new educational and research programs with the aerospace and material science departments.
- New initiatives with the science departments: mathematical studies and chemistry.



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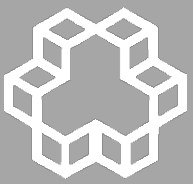
## ▶ Conceivable future prospects:

### MIPT (MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY)

- Activating the signed MoU by joint meetings in Tehran and Moscow.

### RUDN

- Initiating PhD joint programs in aerospace and advanced material Technology.
- Mutually funded industrial research projects.



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## ▶ Conceivable future prospects:

### MAI

- To reconsider and seriously start the two agreed joint Master programs and a joint PhD program.

### MISiS

- Financing and activating the seven agreed research projects and starting the “Advanced Materials Science and Technology” designed with the material science department.

**Thank You For Your Attention**