

## Annual Report of “Education” department of Institute of Mathematics and Mechanics ANAS for 2021

“Education” department of IMM is engaged in organization of doctoral, post-graduation and magistrature education.

**Doctoral studies.** (13 full- time doktral students and 3 part – time students study PhD) On the repoprt period 4 full-time doctoral students completed their doctoral studies: Rajabov Shahin Shamil oglu, Mammadzadeh Nazire Mohubbet gizi, Naghiyeva Nazrin Beyoglan gizi, Novruzova Gulnar Vagif gizi

During the reporting period, 8 people were admitted to the doctoral program of MMI. 5 of which are full-time, 3 are part-time:

1. part-time. Aliyeva Yagut Najaf gizi. 1202.01 - Analysis and functional analysis. Supervisor: doct.math.sci., prof. Ziyadkhan Aliyev.
2. part-time. Aliyeva Nigar Sakif gizi.1202.01 - Analysis and functional analysis. Supervisor: doct.math.sci., prof. Ziyadkhan Aliyev.
3. part-time. Mammadova Aishan Veyis gizi. 1211.01- Differential equations. Supervisor: cand.phys.math.sci. Abdurrahim Guliyev
4. full- time. Gasimova Khayala Ashraf gizi. 1214.01 - on the specialty of equations of mathematical physics. Supervisor: doct.m.s. Farman Mammadov.
5. full- time. Mammadov Ibrahim Jamal oglu. 2003.01 - on the specialty of liquid, gas and plasma mechanics. Supervisor: corr.mem. of ANAS, doct.tech.sci. Geylani Panahov
6. full- time. Huseynzade Ramazan Shirin oglu. 1202.01- Analysis and functional analysis. Supervisor: doct.m.s. Mubariz Gafarshah oglu Hajibeyov
7. full- time. Ahmadli Baharchin Gurban oglu. 1211.01- Differential equations. Supervisor: doct.m.s. Telman Gasimov
8. full- time Jabrayilova Aynur Fadai gizi. 1214.01-Mathematical physics equations. Supervisor: cand.ph.m.s., ass.prof. Shirmail Bagirov

**DISSERTATION** courses (20 dissertation -studenty on preparation of the doctor of philosophy, 11 dissertation studentyon preparation of the doctor of sciences) .

During the reporting period, 4 people completed dissertation courses in Phd. : 1) Askerova Aida Khurshud gizi, 2) Museyibli Parviz Tofiq oglu, 3) Huseynova Lala Ernis gizi,

4) Hasanova Shanay Mugabil gizi. One out of 11 people has completed a doctoral dissertation course who is Guliyev Abdurraim Farman oglu.

During the reporting period, 1 person was admitted to the doctoral dissertation course of MMI: Bagirov Emin Telman oglu. 2002.01 - Mechanics of deformable solids. Supervisor: corr. member of ANAS, doct.m.s.,prof. Surkhay Akbarov. Defendants at the Institute of Mathematics and Mechanics during the reporting period:

- 1) Maharramova Gullar, full-time doctoral student on Doctor of Philosophy-  
Speciality : Analysis and Functional Analysis
- 2) Doctor of Philosophy dissertation student Akhundova Elnara-Differential equations
- 3) Doctor of Philosophy dissertation student Asgarova Aida - on the specialty Analysis and functional analysis
- 4) Doctor of Philosophy dissertation student Museyibli Pazviz - Liquid, gas and plasma mechanics
- 5) Doctor of Philosophy dissertation student Heydarova Saadat - Analysis and functional analysis

6) Doctor of Sciences dissertation student Bayramov Azad - on the specialty of differential equations

Minimum exams were held during the reporting period:

- 1) Azizov Javanshir, full-time doctoral student, Doctor of Philosophy - Analysis and functional analysis - excellent
- 2) Doctor of Philosophy dissertation student Rustamova Nilufer - Analysis and functional analysis - satisfactory
- 3) Doctor of Philosophy dissertation student Ismayilova Kamala - on the specialty of differential equations - satisfactory

### **MAGISTRACY**

During the reporting period, 9 people completed their master's degree and 6 people continued their education.

Semester exams were held from 01.01.21 to 02.02.21 and masters achieved the following exam results.

I course (2020-2022)

1. Alizade Batula Mahir gizi-94 points
2. Huseynova Rubaba Ismayil gizi-93 points
3. Gulmammadova Sahila Firudin gizi-93 points
4. Aliyeva Shalala Eynulla gizi-91 points
5. Jafarova Ulfat Faig gizi-90 points
6. Rzayeva Vusala Bayazkhan gizi - 88 points

II course (2019-2021)

Masters,

1. Aliyeva Khalida Sahil gizi - 100 points
2. Asadzade Javad Adail oglu - 100 points
3. Dadashova Nigar Yagub gizi - 100 points
4. Aliyev Azer Aliheydar oglu - 100 points
5. Asadli Afag Adalat gizi - 100 points
6. Gasimov Jasarat Cevdet - 100 points
7. Rustamova Nigar Iman gizi - 100 points
8. Nagiyeva Dunya Firdovsi gizi - 100 points
9. Shafizade Durra Matlab gizi - with 100 points gave scientific research and scientific pedagogical experience.

Online courses starting on February 16 for 1st year (2nd semester) masters in “Mathematical Analysis”, “Differential Equations”, “Optimization and Optimal Control”, “Fluid, Gas and Plasma Mechanics”, “Deformable Solid Mechanics” held. Online exams were also held in all these areas

17.18 June 2021 at 11:00 II year masters and Management Systems The Institute held an online meeting of the Specialized Council for the defense of 11 master's dissertations in with the Zoom program on "Mathematical analysis", "Mathematical physics" "Optimization and optimal control", "Analysis of complex systems by probabilistic and statistical methods", "Computational diagnostics", "Mathematical Cybernetics".

Javad Asadzadeh was evaluated with points. -100 A, Jasarat Gasimov-100 A, Khalida Aliyeva-96 A, Nigar Dadashova-88 B, Afag Asadli-88 B, Azer Aliyev-88 B, Dunya Nagiyeva-88 B, Durra Shafizade-86-B, Nigar Rustamova-Mikayilova 96-A, Rayiha Niyazova -96A, Shekar Shuleymanova -86 B,

Semester exams were held on 01.06.21-05.07.21 and masters achieved the following exam results.

1. Alizade Batula Mahir gizi-93 points
2. Huseynova Rubaba Ismayil gizi-93 points
3. Gulmammadova Sahila Firudin gizi-91 points
4. Aliyeva Shalala Eynulla gizi-89 points
5. Jafarova Ulfat Faig gizi-92 points
6. Rzayeva Vusala Bayazkhan gizi-93 points Masters successfully completed the first year (II semester) on 05.07.2021 and passed to the second year.

II course (III semester) "Subject Programs" of the lessons taught according to the plan were approved.

1. Problems of fluid flow in the pipe - Corresponding member of ANAS, doct.t.s. Qeyrani Panahov
2. Nonlinear differential equations – doct. m.s.,prof. Adalat Akhundov
3. Spectral theory of differential operators – doct.ph.m.s.,prof. Hamidulla Aslanov
4. The main issues of management theory - doct.ph.m.s.,prof. Telman Malikov
5. Input theorems and their applications - doct.ph.m.s.,prof. Akbar Aliyev
6. Linear equations in Banach space - doct.ph.m.s.,prof. Mammad Bayramoglu
7. Problems of heat transfer in liquids – doct.mech.s.,ass.prof. Elkhan Abbasov
8. Plane problems of the theory of elasticity - doct.mech.s.,ass.prof. Elkhan Abbasov
9. Existence of solutions to extreme problems - doct.ph.m.s.,prof. f-r.e.d., Prof. Hamlet Quliyev
10. Approximate methods of optimal control theory - doct. m.s.,prof. Rafiq Tagiyev
11. Banach spaces of functions. Banach-Hardy classes - doct. m.s.,ass.prof. Telman Gasimov
12. Some issues of the theory of creeping - doct.ph.m.s.,prof. Latif Talibli
13. The theory of hereditary elasticity - doct.ph.m.s.,prof.. Latif Talibli
14. The main issues of oil and gas mechanics – cand.tech.sci., ass.prof. Eldar Abbasov
15. Application of calculation methods to the solution of scientific and technical problems - cand.tech.sci., ass.prof. Hasan Nagiyev
16. Multiphase system mechanics - Ph.D.in math., assoc. prof. Afet Yuzbashiyeva
17. Basics of hydraulics - Ph.D.in math., assoc. prof. Afet Yuzbashiyeva
18. Theory of sustainability-cand.ph.m.s.,ass.prof.. Mahsati Rustamova
19. Fracture mechanics - cand.ph.m.s.,ass.prof.. Guldesta Mammadova

According to the Order No. 431 of ANAS dated September 30, 2021, 9 people were admitted to the magistracy of the Institute of Mathematics and Mechanics of ANAS for the 2021/2023 academic year:

1. Feyzullayev Ilkin Gadir oglu - 88 points, on the specialty of Mathematical Analysis
2. Rahimli Medina Rahim gizi -84 points, on the specialty of Mathematical Analysis
3. Gasimova Gulnar Kazim gizi - 69 points, on the specialty of Mathematical Analysis
4. Ismayilzade Zahra Eldaniz gizi -79 points, on the specialty of differential equations
5. Ibrahimova Ruhangiz Taleh gizi - 65 points, on the specialty of differential equations
6. Khanizade Aygul Mubariz gizi -68 points, on the specialty of differential equations
7. Alizade Gunel Rafiq gizi - 62 points, on the specialty of liquid, gas and plasma mechanics
8. Nasibova Sevinj Ilgar gizi-62 points, on the specialty of liquid, gas and plasma mechanics
9. Sadigova Zuleykha Suleyman gizi - 57 points, on the specialty of liquid, gas and plasma mechanics

"Subject Programs" of the subjects taught according to the plan in the master's degree of RMI of ANAS were approved.

I course (I semester)

1. Modern problems of harmonic analysis - Corresponding member of ANAS Bilal Bilalov
2. Modern problems of mathematics - Corresponding member of ANAS Bilal Bilalov

3. Modern problems of mechanics - corresponding member of ANAS, doct.tech.sci. Qeyrani Panahov
4. Propagation of vibrations and waves in solid and liquid media - corresponding member of ANAS d.t.s. Qeyrani Panahov
5. Nonlinear analysis - doct.ph.m.s.,prof. Hamidulla Aslanov
6. History and methodology of mathematics doct.ph.m.s.,prof. Mammad Bayramoglu
7. Shell theory - doct.mech.s.,ass.prof. Elkhan Abbasov
8. Cauchy and boundary value problem for partial equations – cand.ph.m.s. Abdurrahim Guliyev
9. Linear algebra and structures - Ph.D.in math., Eminaga Mammadov
10. Underground hydromechanics - cand.tech.sci., ass.prof. Eldar Abbasov
11. History and methodology of mechanics - cand.tech.sci., ass.prof. Eldar Abbasov

**Head of the Education Department**

**Professor Adalat Akhundov**