CV and LIST of PUBLİCATİON

1. **Name and surname:** Şahlar MEHERREM

2. **Bithdate:** 08.11.1971

3. **Title:** Assos. Prof. Dr.,

4. **Education:**

Degree	Department	University	Years
Undergraduate and Master	Mathematics	Baku State University, Azerbaijan	1989-1994
Ph.D	Optimization and Optimal Control	Institute Of Cybernetics, National Academy of Azerbaijan, Institute of Cybernetics	1996-.2003

5. Academic Title:

Job experiences	University	Years
Research Assistant	Institute of Cybernetics, National Academy of Science of Azerbaijan	1994-2004
Dr. Researcher	Freiberg University, Germany, (DFG and DAAD Project)	2004-2005
Assist. Prof. Dr	Institute of Cybernetics, National Academy of Science of Azerbaijan	2005-2006
Assist. Prof.	Yasar University, Turkey	2006-
Associate Prof	UAK	2015-

6. **Supervised Doctoral and Master thesis:**

6.1. **Doctoral thesis**

Deniz Gücoğlu, Stochastic **Optimal Control for Mc-Kean Vlasov System** (2013- **bitirme aşamasında), Yaşar University.**

6.2. **Master thesis**

1. Merve Sengul, **Subdifferential in Nonsmooth Optimal Control Problem**, (2009-2011),

   Yaşar University.

2. Ece Curbuz, **Necessery and Sufficient condition for Optimality for Stochastic Mean-Field Control ,** (2009- 2011), **Yaşar University.**

3. Cem Oğuz,   **Discrete Stochastic Mean-Field Optimal Control Problem,** (2009-2011), **Yaşar University.**

4. Yesim Ipek, **Hybrid Optimal Control Problem,** (2010-2012), **Yaşar University.**

5. Ertem Özöglu, **Dubovitskii-Milyutin Theory in Switching Control System**,

 (2012-2014), **Yaşar University.**

6. Fatih Kuzgun, **Yüksek Mertebeden Linear Fark Denklem Sistemlerinin Schur**

 Kararlılığının Hassasiyeti, (2013-2016), **Yaşar University.**

7. Derya Dincer, Stochastic Optimal Control and its Application, **Yaşar University**.

7. Publications

7.1. SCI and SCI-E journal articles :

Published Paper

A1. S. Meherrem, Gucoglu and S. Guliyev, Numerical solution of linear-quadratic optimal control problems for switching, **Miskolc Mathematical Notes,** Vol. 19 (2018), No. 2, pp. 1035–1045 **2018.**

A2. Ş. Meherrem, M. Hafayed, Maximum principle for optimal control of McKean-Vlasov type forward-backward stochastic differential system driven by Levy process via derivative with probability law, **Optimal Control Application and Methods,** 04 March 2019,**https://doi.org/10.1002/oca.2490**

A3. Shahlar Meherrem, Mokhtar Hafayed, Syed Abbas, On Peng's type maximum principle for optimal control of mean-field stochastic differential equations with jump processes**, International Journal . Modelling, Identification and Control, Vol. 31, No. 3, 2019   2019**

A4. M. Hafayed, **S. Meherrem,** On Optimal control of mean-field stochastic systems driven by Teugels martingales via derivative with respect to measure, **International Journal of Control, Accepted for publication in 2019,** DOI: 10.1080/00207179.2018.1489148, 22 pp.

A5. M. Hafayed, **S. Meherrem,** S. Eren amd D. H. Gucoglu, On optimal singular control problem for general Mckean-Vlasov differential equations: Necessary and sufficient optimality conditions, **Optimal Conntrol, Application and Methods,** Vol. 39, Issue 3, p 1202-1219, 2018

A6. M. Hafayed, **S. Meherrem,** D. H. Gucoglu and S. Eren, Variational principle for stochastic singular control of mean-field Lévy-forward-backward system driven by orthogonal Teugels martingales with application, **International Journal . Modelling, Identification and Control,** 2017-Vol.28, No2, pp 97-113

A7. H. Mokhdar, Y.Shi, **S. Meherrem**, S. Boukaf**,** A McKean-Vlasov optimal adaptive mixed regular-singular control problem for nonlinear stochastic systems with Poisson jump processes with manuscript number, **Neurocomputing** (Elsevier) 182(2016), p 133-144

A8. G. Kurina and **S. Meherrem,** Decomposition of Discrete Linear-Quadratic Optimal Control Problems for Steps Systems**, American Institute of Mathematics Proceeding, Dynamical Systems, Differential Equations and Applications**, p. 764-774, DOI: 10.3934/proc.2015.0764 2015.

A9. Sh. Maharramov, Necessary Optimality for Switching Optimal Control Problem, **American Institute of Mathematical Sciences, Journal of Industrial and Manegement Optimi zation**, Vol.3, No.4, p. 47-56, 2010.

A.10. **S. Meherrem** and R. Akbarov, Optimal Control Problem For Switched System with the Nonsmooth Cost Functional, **Abstract and Applied Analysis** , Vol 2013, ID 681862, 1-6 pp.,

A11. S. Meherrem and R. Polat, Weak subdifferential in Nonsmooth Analysis and Optimization, **Journal of Applied Mathematics ,** Vol. 2011 p. 1-9, Article ID 204613, doi: 10.1155|2011|204613.

A12. R. Akbarov**,   S. Meherrem and** Yesim Cingillioglu, Switching Discrete Control Problem, **Proceddings of Problems of Cybernetics and Informatics**, p. 106-109, 2012

7.2. Internationally refereed journal articles:

B1. S. Meherrem, M. Hafayed, D. H. Gucoglu and S. Eren, A General characterization of the stochastic optimal combined control of mean field stochastic system with application, **International Journal of Dynamics and Control (Scopus, Springer)**, June 2018, Volume 6, Issue 2, pp 873–88

B2. C. Oguz, Y. Ahmet and **Sh. Meherrem,** On the solution of the generalized Bretherton Equation by the homogeneous balance method, **Communication in Numerical Analysis**, Vol. 2012, doi:10.5899/2012/cna-00052, 11 p. , 2012

B3 **Ş. Meherrem,** G. Açıksöz, S. Şen, Z. Sezer, and G. Başkes, Geometric inequalities in pedal quadralaterial, **Forum Geometricorum,** Volume 18, 2018, 103--114.

B4. **S. Maharramov,** Optimality Condition for Nonsmooth Switching Control Problem, **Automatic Control and Computer Science (Scopus)**, 94-101 pp., Vol. 42, Iss.2., 2008.

B5. S. Maharramov (Magerramov) and K. Mansimov, Optimization of a Class of Discrete step control System, **Journal of Computational Mathematics and Mathematical Physics** , 360-366 pp., Vol. 3, 2001. (Scopus, Springer)

B6. **S. Maharramov**, Investigation of singular Control in one Discrete System with Variable structure and Delay, **Proceddings of Institute Mathematics and Mechanics of Azerbaijan** , 169-176 pp., 2001

B7. **S. Maharramov,** Sufficient Optimality Conditions Type Krotov for one Class Discrete system with Varing Structure, **Azerbaijan Republic, Tahsil Community, Journal of Bilgi** , 36-43 pp., 2000 (1), (in Russian)

B8. S. Maharramov, Quasi-Singular Control for Discrete System with Varying Structure, **Azerbaijan Republic,"Tahsil" community, Journal of Bilgi** , 44-52 pp., 2003, (in Russian)

B9. ** K. Mansimov and **S. Maharramov, Second order Optimality Conditions for Discret Optimal Control Problem with Varying Structure, **Azerbaijan Republic, Tahsil Community, Journal of Bilgi,** (in Russian), 2000(2).

B10. S. Maharramov, Applying economical problems to step discrete control system**, Perspetive of Economics, Selected Proceedings of the Third International Conference On Business, Management and Economics, Izmir-2017**

B11. S. Maharramov, Z. Ors and A. Guler, The Third International Conference, Problems of Cybernetics, **Optimal control for hybrid system**, 44-48 pp., Baku, Azerbaijan, 2010.

B12. S. Maharramov, The İnternational Conference of Applied Problems of Mathematics**, Investigation one class of control system (In Russian),** Page 56-59, Baku State University 2001, Azerbaijan.

7.3. Confernce Presentations

C1. **S. Maharramov,** Workshop on PDE Constrained Optimization, **Optimization of Discrete System with Varying Structure**, p.25-26, 2005, Portugal.

C2. S. Maharramov, 23th European Conference on Operational Research, **Nonsmooth Switching Optimal Control Problem**", 231 pp., Germany, Bonn, 2009.

C3. Meherrem Sh and Deniz Gücoğlu, Book of Abstracts of 1st International Scientific Conference of Young Scientists and Specialists, Dubavitskii- Milyutin Theory in Optimal Control with Variable Structure, p.248-249, October, 2014, Azerbaijan.

C4. D. Gücoğlu and **Ş. Meherrem,** Book of Abstracts 1st International Scientific Conference of Young Scientists and Specialists, Decomposition of linear-quadratic optimal control problems for two-steps systems with unknown switching points, p.189-190, October, 2014, Azerbaijan.

C5. Ş. Maharramov, Optimality Cnditions for One Class Discrete System, Thesis Summary, **Institute of Cybernetics Puiblish. , preprint, 20 pages, 2003, Baku (in Russian)**

7.4. Books:

D1. **Sh. Maharramov**, Necessary optimality conditions for a discrete control system, **Lambert Academic Publishing (Germany),** ISBN-10: 3844334238, ISBN-13: 978-3844334234 (doktorluk tezi ve mekalelerden derlemeler), 156 pp., 2011

D2. **Sh. Maharramov**, Mathematics 1 (Geometry), math. (with Tayyib Oral), Universiteye Hazırlık Soru Bankası,**"Araz kursları" publishing 2002 (Zirve; Cağ öyretim), Baku**

8. Gıven Presentations,

Invited   speaker, Optimal Switching Control Problems**, Zlin University (Prague, Czech Republic) 2014**

Invited Speaker, Necessary Conditions for optimal control problems**, Bilkent University, Turkey, 2011**

Invited speaker, Stochastic Optimal Control Problems**, Miskolc University, Hungary, 2017**

9. Teaching Experience

Academic Years	Session	Subject	Weekly		Number of Students
			Teorik	Uygulama	
2015-2016	Fall	Calculus II (Flat)	3	2	24
		Advanced Calculus I	3	2	9
		Convex Analysis and Optimization	3	0	15
		Real Analysis	4	0	13
		Functional Analysis I *(Master Students)*	3	0	2

		Partial Differential Equations *(Master Students)*	3	0	5
		Applied Partial Differential Equations *(Doctoral Students)*	3	0	2
	Spring	Calculus II (Flat)	3	2	24
		Advanced Calculus II	3	2	14
		Functional Analysis (Master Students)	4	0	30
		Special Topics in Applied Mathematics (Optimal Control)	3	0	7
		Partial Differential Equations *(Master Students)*	3	0	3
		Applied Partial Differential Equations *(Doctoral Students)*	3	0	2
		Calculus for Business	3	0	10
2016-2017	Fall	Calculus I	3	2	71
		Calculus II (Flat)	3	2	46
		Real Analysis	4	0	7
		Functional Analysis *(Master Students)*	3	0	3
		Partial Differential Equations *(Master Students)*	3	0	3
		Convex Analysis and Optimization	3	0	7

10. Project, Conducted:

1. DFG (**Germany National Science Fond**) ve DAAD (**Germany Academic Exchange Service**) 2004-2005, Researcher Dr, Freiberg Üniversitesi (**Almaniya**) , No. D2005II.
2. **Tubitak Project -2221** , With Prof. Dr. Galina Kurina (**Russia, Voronezh State University**), 2014.
3. **Tubitak Project -2221** , With Prof. Dr. Mokhtar Hafayed (**Algeria , Biskra University**), 2016.

11. Memberships in Scientific organization:

1. Azerbaijan Mathematics Society

2. American Mathematics Society

12. Reviewer:

1. Pacific Journal of Optimization, 2011-

2. British Journal of Mathematics and Computer Sciences. 2010-

3. Optimization (Springer) , 2012-

4. Optimization Letters (Elsevier) , 2012-2016

13. Administrative Duty:

1. Department Erasmus Coordinator

2. International Mathematical Olympiad Coach, Ege Lisesi 2009-2012

   and Ozel Izmir Lisesi 2016-2017

14. Awards:

1. University Honor Diplom, (Baku State University, 1989-1994)

2. SCI indexed articles encouregement awards by **National Science Chancellor of Turkey**,

   2008, 2010, 2011**,** 2012, 2013, 2014, 2016, 2017, 2018.