




	<b>CV / ACADEMIC STAFF</b>		<b>Document No</b>	TIU-HR-FR-009E
			<b>Validity Date</b>	07/05/2016
			<b>Revision No</b>	00
	<b>Unit</b>	Human Resources	<b>Page No</b>	

### PERSONAL DATA

	<b>Name:</b>	Orhan Tug
	<b>Mobile:</b>	+9647501644439
	<b>E-Mail:</b>	<a href="mailto:orhan.tug@tiu.edu.iq">orhan.tug@tiu.edu.iq</a>

### EDUCATION AND QUALIFICATIONS

YEAR	DEGREE
<b>2019</b>	<b>PHD :</b> Department of Mathematics, Faculty of Sciences and Mathematics, University of Nis, Nis-Serbia. <b>PHD THESIS:</b> B(r,s,t,u)-Summable Double Sequence Spaces and Matrix Transformations.
<b>2011</b>	<b>MASTER DEGREE:</b> Functional Analysis Major, Department of Mathematics, Institute of Natural Sciences, Sakarya University, Sakarya-Turkey. <b>MASTER THRSIS:</b> Some I and I* Convergent Double Sequence Spaces.
<b>2008</b>	<b>BACHELOR'S DEGREE:</b> Department of Mathematics, Faculty of Arts and Sciences, Atatürk University, Erzurum-Turkey.
<b>2004</b>	<b>BACCALAUREATE (HIGH SCHOOL) :</b> Ünye high school, Ordu-Turkey

### WORK EXPERIENCE

Year	Place	Title
2020-	Tishk International University	Lecturer/Head of Department
2011-2020	Tishk International University	Assistant Lecturer/Head of Department

	<b>CV / ACADEMIC STAFF</b>		<b>Document No</b>	TIU-HR-FR-009E
			<b>Validity Date</b>	07/05/2016
			<b>Revision No</b>	00
	<b>Unit</b>	<b>Human Resources</b>	<b>Page No</b>	

2010-2011	High School-Istanbul	Math Teacher
-----------	----------------------	--------------

Note: list them from the most recent to older .

## LANGUAGE SKILLS

- 1- Turkish (Mother Tongue)
- 2- English (Fluent speaking, excellent reading and writing)
- 3- Kurdish (Starter)

## RESEARCH INTERESTS :

My research interest lies in functional analysis and basically falls into but not limited to

- 1- Summability theory
- 2- Matrix methods
- 3- Double and single sequence spaces
- 4- Schauder bases
- 5- Matrix transformations
- 6- The alpha-, beta- and gamma-duals
- 7- Operator theory
- 8- Spectral theory on Banach spaces
- 9- Measure theory
- 10- Ideal and statistical convergence of sequence spaces

## COURSES TAUGHT


- Introduction to Mathematics I-II
- Pre-Calculus I-II
- Advanced Calculus I-II
- Linear Algebra I-II
- Mathematical Analysis I-II
- Foundation of Mathematics
- Discrete Mathematics
- General Mathematics
- Fundamentals of Functional Analysis
- Research Methods in Mathematics
- Technical English in Mathematics
- Introduction to Topology
- Research Projects in Mathematics

	CV / ACADEMIC STAFF		Document No	TIU-HR-FR-009E
			Validity Date	07/05/2016
			Revision No	00
	Unit	Human Resources	Page No	

## ACADEMIC ACTIVITIES (workshops, seminars , participations, others..)

### A-Conference Participations with a paper


- 1- *On the domain of Nörlund Mean in the space of almost null and almost convergent sequence space*, KMD 2014 Karatekin Mathematics days 2014 International Mathematics Symposium (11-13 June, 2014)
- 2- *Generalized Weighted Nörlund Mean and Ideal Convergence*, ICRAPAM 2014 1st International conference on Recent in Pure and Applied mathematics (6-9 November 2014)
- 3- *On the space of Nörlund Almost null and Nörlund Almost Convergent Sequences*, ICRAPAM 2015 2nd International conference on Recent in Pure and Applied mathematics (3-6 June 2015)
- 4- *Four-dimensional generalized difference matrix and some double sequence spaces*, AMS 2015 International conference on Advancements in mathematical sciences (5-7 November, 2015)
- 5- *On some Generalized Nörlund Ideal Convergent Sequence Spaces*, International Conference on Energy, Environment and Applied Science (ICEEAS-2016) 10-11 April 2016, Ishik University, Erbil, IRAQ. And Co-Chair of the conference
- 6- *Four-dimensional generalized difference matrix and some double sequence spaces*, ICAAM 2016 Third International Conference on Analysis and Applied Mathematics, September 7-10, 2016 in Almaty, Kazakhstan
- 7- *B-summable almost convergent double sequences*, International Conference on Applied science, Energy and Environment, ICASEE-2017, May 20-21, 2017 Erbil IRAQ
- 8- *On The Sequence Space  $bv(N^t)$  And Some Applications*, International Conference on Applied science, Energy and Environment, ICASEE-2017, May 20-21, 2017 Erbil IRAQ
- 9- *On the Characterization of Some Classes of Four-Dimensional Matrices and Almost B-summable Double Sequences*, National Conference on Pure and Applied Mathematics and Mathematics Education, NCPAME-2018, February 11-12, 2018, Erbil-IRAQ.
- 10- *On the domain of four-dimensional sequential band matrix in some double sequence spaces*, CPMMI-2020, Serbia.
- 11- *Domain of Generalized Difference Operator  $\Delta_i^3$  of Order Three in The Sequence Spaces  $l_1$  and  $bv$* , ICOWOBAS-22, 28 August 2021, Malaysia.
- 12- *On the New Hahn Sequence Space  $h_d^p$* , International Conference on Applied science, Energy and Environment, ICASEE-22, 26-27 March 2022 Erbil-IRAQ
- 13- *On the second order Hahn Sequence Space  $h^{(2)}$* , ICOWOBAS-23, 8-12 May 2023, Tishk International University, Erbil IRAQ.
- 14- *On the Hahn sequence space  $h(\lambda)$  with speed*, ICOWOBAS-23, 8-12 May 2023, Tishk International University, Erbil IRAQ.

	<b>CV / ACADEMIC STAFF</b>		<b>Document No</b>	TIU-HR-FR-009E
			<b>Validity Date</b>	07/05/2016
			<b>Revision No</b>	00
	<b>Unit</b>	<b>Human Resources</b>	<b>Page No</b>	

- 15- Common Reasons for Manuscript Rejections, National Symposium: 7th Excellent Paper Symposium, Erbil-IRAQ.**
- 16- Properties of Certain Sequence Spaces and Corresponding Matrix Classes, ICASEE-25, January 27-29 2025, Tishk International University, Erbil IRAQ.**
- 17- On the Hahn sequence space  $h(\lambda)$  with speed, ICOWOBAS-25, 7-9 May 2025, UTM, Malaysia.**

## **B-Organizational Academic Activities**

- **Co-Chair** of ICEEAS-2016(3<sup>rd</sup> International Conference on Energy, Environment and Applied science), Erbil-IRAQ
- **Secretary** of ICASEE-2017(4<sup>th</sup> International Conference on Applied science, Energy and Environment), Erbil-IRAQ
- **Chair** of NPC-2017(National Pop Conference), Erbil-IRAQ
- **International Organization Committee member** of TWMS-2017 Astana-KAZAKHISTAN
- **Chair** of NCPAME-2018(National Conference on Pure and Applied Mathematics and Mathematics Education), Erbil-IRAQ
- **Secretary** of NPC-2018(2<sup>nd</sup> National Pop Conference), Erbil-IRAQ
- **Secretary** of ICASEE-2018(5<sup>th</sup> International Conference on Applied science, Energy and Environment), Erbil-IRAQ.
- **Secretary** of ICCRAMS 2019(1st International Conference on Clinical Research and Medical Sciences), Erbil IRAQ.
- **Chair** of ICASEE-2022(6<sup>th</sup> International Conference on Applied science, Energy and Environment), Erbil-IRAQ.
- **International Organization Committee member** of International Conference on Nonlinear Analysis and Applications-2022, November 22-23, 2022, (ICNAA 2022), Department of Mathematics, School of Fundamental and Applied Sciences, Assam Don Bosco University, Tapesia Garden, Sonapur-782402, Assam, India.
- **Co-Chair** of ICOWOBAS-2023(9<sup>th</sup> International Conference and Workshop of Basic and Applied Sciences), Erbil-IRAQ.
- **Co-Chair** of ICASEE-2025(7<sup>th</sup> International Conference on Applied science, Energy and Environment), Erbil-IRAQ.
- **Co-Chair** of ICOWOBAS-2025(10<sup>th</sup> International Conference and Workshop of Basic and Applied Sciences), UTM, Malaysia.
- **Chair** of NAYREC-2025(12<sup>th</sup> National Young Researcher Conference), TIU, Erbil-IRAQ.

	CV / ACADEMIC STAFF		Document No	TIU-HR-FR-009E
			Validity Date	07/05/2016
			Revision No	00
	Unit	Human Resources	Page No	

## PUBLICATIONS

### SELECTED ARTICLES:

(The Publications appears in SCI, SCI Exp.,SSCI and AHCI are shown with \*)

- 1- Tuğ, O. "On the New Hahn Sequence Space  $h(2)$ ." *Abstract and Applied Analysis*. Vol. 2025. No. 1. Wiley, 2025. <https://doi.org/10.1155/aaa/6726703>.
- 2- Tuğ, O., Malkowsky, E., Rakočević, V. and Hazarika, B., 2025. On the Four-Dimensional Forward Difference Matrix, Summability, Fixed Point Theory and Generalized integrals with Applications, Chapman and Hall/CRC. <https://www.routledge.com/Summability-Fixed-Point-Theory-and-Generalized-Integrals-with-Applications/Kalita-Nazir-Tikare-Tikare/p/book/9781032980027>
- 3- Tuğ, O., Malkowsky, E., Rakočević, V. and Yaying, T., 2025. On the Double Sequence Space  $H_2$  as an Extension of Hahn Space  $h$ . *International Journal of Mathematics and Mathematical Sciences*, 2025(1), p.2089578. <https://doi.org/10.1155/ijmm/2089578>
- 4- Orhan Tuğ, "On The Spectrum of Norlund Type Matrix Operator  $A=(a_{nk})$  on The Sequence Spaces  $l_1$  and  $bv$ ", Eurasian Journal of Science & Engineering., <https://doi.org/10.23918/eajse.v9i2p15>
- 5- Ohan Tuğ, "Domain of generalized difference operator  $\Delta_i^3$  of order three in the sequence spaces  $l_1$  and  $bv$ ", AIP Conference Proceedings, 2023
- 6- Orhan Tuğ, Eberhard Malkowsky, Bipan Hazarika, Taja Yaying, "On the New Generalized Hahn Sequence Space  $h_d^p$ ", *Abstract and Applied Analysis*, vol. 2022, Article ID 6832559, 11 pages, 2022. <https://doi.org/10.1155/2022/6832559>
- 7- Tuğ, O., Kawa, M. "On The Spectrum of the Matrix Operator  $A = (a_{nk})$  on Hahn Sequence Space  $h$ " Eurasian Journal of Science & Engineering. <https://doi.org/10.23918/eajse.v8i3p94>.
- 8- Yaying, T., Kirisci, M., Hazarika, B. and Tuğ, O., "Domain of Cesàro matrix in Hahn sequence space  $h_d$  and the space  $bv$  of the sequences of bounded variation" *FILOMAT*, <https://doi.org/10.2298/FIL2219427Y>.
- 9- Tuğ, O., "Domain of Generalized Difference Operator  $\Delta_i^3$  of Order Three in The Sequence Spaces  $l_1$  and  $bv$ " AIP, <https://doi.org/10.1063/5.0103773>
- 10- \*Tuğ, O., Rakočević, V., & Malkowsky, E. "On the spaces  $\mathcal{BV}_0$  of double sequences of bounded variation." *Asian-European Journal of Mathematics* (2022): 2250204. <https://doi.org/10.1142/S1793557122502047>
- 11- \*Tuğ, O., "The Generalized Difference Operator of Order Three and Its Domain in the Sequence Spaces  $l_1$  and  $l_\infty$ ", *Journal of Mathematics*, vol. 2022, Article ID 6343084, 13 pages, 2022. <https://doi.org/10.1155/2022/6343084>
- 12- \*Tuğ, O., Rakočević, V., & Malkowsky, E. (2021). Domain of generalized difference operator  $\Delta_i^3$  of order three on the hahn sequence space  $h$  and matrix transformations. *Linear and Multilinear Algebra*, 1-19. <https://doi.org/10.1080/03081087.2021.1991875>
- 13- Tuğ, O., (2021) Almost and Strongly Almost  $B(er,se,et,ue)$ –Summable Double Sequences. *Eurasian Journal of Science & Engineering*, 7 (2). pp. 71-89. ISSN 2414-5602. <https://doi.org/10.23918/eajse.v7i2p71>



	CV / ACADEMIC STAFF		Document No	TIU-HR-FR-009E
			Validity Date	07/05/2016
			Revision No	00
	Unit	Human Resources	Page No	

- 14- \*Malkowsky, E., Milovanović, G.V., Rakočević, V., Tug, O. The roots of polynomials and the operator  $\Delta_i^3$  on the Hahn sequence space  $h$ . Comp. Appl. Math. 40, 222 (2021). <https://doi.org/10.1007/s40314-021-01611-6>
- 15- \*Malkowsky, E., Rakočević, V. & Tuğ, O. (2021) Compact operators on the Hahn space. Monatsh Math (2021). <https://doi.org/10.1007/s00605-021-01588-8>
- 16- Tuğ, O. "The spaces of  $B(r,s,t,u)$  strongly almost convergent double sequences and matrix transformations", Bulletin des Sciences Mathématiques, Volume 169, July 2021, 102989. <https://doi.org/10.1016/j.bulsci.2021.102989>
- 17- \*Tuğ, O.; Rakočević, V.; Malkowsky, E. "On the Domain of the Four-Dimensional Sequential Band Matrix in Some Double Sequence Spaces". Mathematics 2020, 8, 789. <https://doi.org/10.3390/math8050789>
- 18- \*Tuğ, O., "On The Characterization of Some Classes of Four Dimensional Matrices and Almost B-Summable Double Sequences", Journal of Mathematics, HINDAWI, 2018. <https://doi.org/10.1155/2018/1826485>
- 19- \*Tuğ, O., "On almost B-summable double sequence spaces", Journal of Inequalities and Applications, vol. 2018, pp. , 2018. <https://doi.org/10.1186/s13660-017-1606-6>
- 20- \*Tuğ, O., "Four-Dimensional Generalized Difference Matrix and Almost Convergent Double Sequence Spaces", Springer Proceedings in Mathematics and Statistics, vol. 216, pp. 83–87, 2017. [https://doi.org/10.1007/978-3-319-67053-9\\_7](https://doi.org/10.1007/978-3-319-67053-9_7)
- 21- \*Tuğ, O., "Four-dimensional generalized difference matrix and some double sequence spaces." Journal of Inequalities and Applications 2017.1 (2017): 149. <https://doi.org/10.1186/s13660-017-1423-y>
- 22- \*Tuğ, O., and Başar. F., "Four-dimensional generalized difference matrix and some double sequence spaces." international conference on analysis and applied mathematics (ICAAM 2016). Vol. 1759. No. 1. AIP Publishing, 2016. <https://doi.org/10.1063/1.4959689>
- 23- \*Tuğ, O., and Başar. F., "On the Spaces of Nörlund Almost Null and Nörlund Almost Convergent Sequences." Filomat 30.3 (2016). <https://doi.org/10.2298/FIL1603773T>
- 24- \*Tuğ, O., and Başar. F., "On The Spaces Of Norlund Null And Norlund Convergent Sequences." TWMS J. Pure Appl. Math., V.7, N.1, 2016, pp.76-87
- 25- Tuğ, O., "Some Almost Lacunary Double Sequence Spaces Defined by Orlicz Functions in 2-Normed Spaces", ISRN Mathematical Analysis, Vol. 2012, No. ID 378575, Jan. 2013, pp. 11. <https://doi.org/10.5402/2012/378575>
- 26- Tuğ, O., Dogan, M., and Kurudirek, A., "Some New Double sequence Spaces in 2-Normed Spaces Defined by Ideal Convergence and an Orlicz Function", ISRN Mathematical Analysis, Vol. 2012, No. ID 524962, Jan. 2013, pp. 11. <https://doi.org/10.5402/2012/524962>
- 27- Tuğ, O., "On some Generalized Nörlund Ideal Convergent Sequence Spaces", Zanco Journal of Pure and Applied Science, 2016.
- 28- Tuğ, O., and Mutlay, D., "Review on Some Sequence Spaces of p-adic Numbers", Eurasian Journal of Science & Engineering, Volume 3, Issue 1 (Special Issue); September, 2017, 231-237.
- 29- Tuğ, O., "On the  $B(r,s,t,u)$ -Matrix Domain in the Sequence Space  $L_u$ ", Eurasian Journal of Science & Engineering, 3 (1), 204-211

	<b>CV / ACADEMIC STAFF</b>		<b>Document No</b>	TIU-HR-FR-009E
			<b>Validity Date</b>	07/05/2016
			<b>Revision No</b>	00
	<b>Unit</b>	<b>Human Resources</b>	<b>Page No</b>	

- 30- Tuğ, O., “On the Domain of Nörlund Matrix in the Space of Bounded Variation Sequences”, Eurasian Journal of Science & Engineering, 3 (2), 111-120.  
<https://doi.org/10.23918/eajse.v3i2p111>
- 31- Tuğ, O., “Nörlund Matrix Domain on Sequence Spaces of p-adic Numbers”, Eurasian Journal of Science & Engineering, Volume 3, Issue 3; June, 2018, 33-41.