



## Balal Aalam

**Nationality:** Pakistani **Date of birth:** 05/11/1993 **Gender:** Male

**Phone number:** (+92) 3004681629 **Email address:** [balalaalam700@gmail.com](mailto:balalaalam700@gmail.com)

**Whatsapp Messenger:** +923004681629

**LinkedIn:** <https://www.linkedin.com/in/balal-aalam-7a2193135>

**Work:** Village Gumtala Tehsil shakargarh district narowal Punjab pakistan, 51800 Shakargarh (Pakistan)

**Home:** Near-KotAbdul-malik Interchange Shakhupura Road Lahore,Punjab,Pakistan, 39250 Shekhupura (Pakistan)

### ABOUT ME

I am Balal Aalam, an accomplished professional with a strong academic background and a passion for Mathematics and research. With an MPhil degree in Applied Mathematics, my expertise lies in the field of fractional order optimal control models for TB infection diseases and numerical solutions for partial differential equations. Throughout my academic journey, I have demonstrated exceptional skills in theoretical and applied mathematics, allowing me to contribute significantly to the advancement of knowledge in my research areas. My research work on developing fractional order optimal control models for TB infection diseases has the potential to improve disease management strategies and contribute to public health initiatives. Apart from my research accomplishments, I also possess four years of teaching experience, specializing in Intermediate and Bachelor level classes. My teaching skills enable me to effectively convey complex mathematical concepts to students, fostering a positive and engaging learning environment. I am a highly motivated individual, always seeking opportunities to expand my knowledge and explore new areas of mathematics and scientific inquiry. I am confident that my blend of academic excellence, research expertise, and teaching experience make me a valuable asset in any academic or research institution. With a keen eye for detail, strong analytical abilities, and a commitment to excellence, I am dedicated to contributing positively to the academic and research community.

### KEY WORDS

#### Main Key Words

1. **Mathematical Biology**
2. **Infection Diseases**
3. **Partial Differential Equations**
4. **Numerical Solution For PDE**
5. **Mathematics Lecturer**
6. **Senior Mathematics Teacher**
7. **Online Mathematics Tutor**

### WORK EXPERIENCE

#### HOD MATHEMATICS

**ASPIRE GROUP OF COLLEGE SHAKARGARH DISTRICT NAROWAL,PUNJAB,PAKISTAN** [ 09/08/2019 – Current ]

**City:** Shakargarh

**Country:** Pakistan

I am working as a Head of faculty in Mathematics department .

#### Key Responsibilities:

- **Curriculum Development:** Design and oversee the development of a comprehensive mathematics curriculum, ensuring alignment with educational standards and objectives.
- **Faculty Management and Development:**
  - Recruit, mentor, and evaluate mathematics faculty members, providing guidance and support for their professional growth.

- **Academic Planning:**

- Plan and coordinate the academic calendar for the mathematics department, including class schedules, assessments, and extracurricular activities.

- **Quality Assurance:**

- Monitor and assess the quality of mathematics instruction, implementing improvement strategies as needed to enhance student learning outcomes.

- **Resource Allocation:**

- Manage departmental resources, including budgets, materials, and equipment, to ensure efficient operations and effective teaching.

- **Student Support and Guidance:**

- Provide academic guidance and support to students, helping them excel in mathematics and addressing any concerns or challenges they may face

## **MATHEMATICS LECTURER**

**PUNJAB GROUP OF COLLEGE SHAKARGARH, DISTRICT, NAROWAL, PUNJAB, PAKISTAN** [ 02/02/2022 – Current ]

City: SHAKARGARH

Country: Pakistan

I am working as a visiting lecturer in Mathematics department for Bachelor classes.

### **Key Responsibilities:**

- **Curriculum Development:** Develop and update course materials, syllabi, and teaching plans to ensure alignment with current educational standards and objectives.
- **Effective Instruction:** Deliver engaging and informative lectures, facilitate classroom discussions, and provide one-on-one guidance to students to enhance their understanding of mathematical concepts.
- **Assessment and Evaluation:** Design and administer assessments, quizzes, and examinations to evaluate students' progress and provide timely feedback on their performance.
- **Student Support:** Offer academic counseling and mentoring to students, addressing their individual learning needs and assisting them in achieving their academic goals.
- **Research and Professional Development:** Stay current with developments in the field of mathematics, engage in scholarly research, and attend workshops or conferences to continually enhance your teaching methods and knowledge.
- **Administrative Duties:** Manage classroom logistics, maintain accurate records of student attendance and grades, and collaborate with colleagues and administrators to contribute to the overall effectiveness of the mathematics department.

## **Mathematics Teacher**

**Paradise Higher Secondary School** [ 21/08/2017 – 29/08/2018 ]

City: Shakargarh

Country: Pakistan

### **Key Responsibilities:**

- Plan, prepare, and deliver high-quality mathematics lessons that cater to the needs of diverse learners.
- Create a stimulating and inclusive learning environment where students feel motivated to actively participate and excel.
- Employ a variety of teaching strategies and resources to facilitate effective learning and understanding of mathematical concepts.
- Provide constructive feedback and guidance to students, assessing their progress and implementing appropriate interventions when necessary.
- Collaborate with colleagues to develop and share best practices, contributing to the continuous improvement of the mathematics department.
- Participate in staff meetings, parent-teacher meetings, and school events as required.

## **ACCOMPLISHMENT POINT**

### **Achievements**

[ 09/08/2019 – Current ]

- Designed and implemented innovative teaching methods, including interactive simulations and real-world applications, resulting in a 15% increase in student engagement and a 10% improvement in overall class performance during the academic year.
- Designed and implemented innovative teaching methods, including interactive simulations and real-world applications, resulting in a 15% increase in student engagement and a 10% improvement in overall class performance during the academic year.
- Designed and delivered innovative lesson plans and teaching materials that significantly improved students' understanding of complex mathematical concepts, resulting in a 15% increase in average class grades over the academic year at Aspire Group of College.

## EDUCATION AND TRAINING

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### **Mphil Mathematics**

*University of Engineering and Technology Lahore pakistan* [ 09/10/2018 – 26/04/2022 ]

Address: G.T.Road Staff Houses Engineering University, Lahore, Punjab Pakistan., 05475 Lahore (Pakistan)

Website: <https://uet.edu.pk>

### **MSc Mathematics**

*University of the Punjab lahore Pakistan new Campus* [ 09/09/2015 – 25/04/2018 ]

City: Lahore

Country: Pakistan

Website: <http://pu.edu.pk>

### **BSc Double Math,Physics**

*University of the punjab lahore new campus pakistan* [ 10/10/2013 – 21/08/2015 ]

City: Lahore

Country: Pakistan

Website: <http://pu.edu.pk>

### **Fsc(Pre Engineering)**

*Govt Post Graduate college Shakargarh District Narowal pakistan.* [ 10/10/2009 – 10/10/2011 ]

City: Shakargarh

Country: Pakistan

Website: <https://ocas.punjab.gov.pk>

### **Secondary School Certificate (Science Group)**

*GOVT.GD.ISLAMIA SCHOOL MAINGRI NAROWAL PAKISTAN* [ 09/09/2007 – 01/08/2009 ]

City: Shakargarh

Country: Pakistan

Website: <https://pk.top10place.com>

### **Bacehelor of Education (B.ED)**

*Allama Iqbal Open University Islamabad,Pakistan* [ 01/01/2016 – 01/01/2017 ]

Address: Islamabad Pakistan, Islamabad (Pakistan)

Website: <https://aiou.edu.pk>

## LANGUAGE SKILLS

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Mother tongue(s): **Urdu**

Other language(s):

**English**

**LISTENING C1 READING C1 WRITING C1**

**SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## DIGITAL SKILLS

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Microsoft word / Zoom / Matlab / Mathimatica / Python / Latex

## PROJECTS

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**Reaserch Purposal**

[ 09/10/2018 – 26/04/2022 ]

**1: FRACTIONAL ORDER OPTIMAL CONTROL MODEL FOR TB INFECTION DISEASES .**

### Key Point:

- **Mathematical Modeling Prowess:** Demonstrated proficiency in creating mathematical models to understand the dynamics of tuberculosis infection, showcasing a strong foundation in applied mathematics.
- **Fractional Calculus Application:** Expertise in applying fractional calculus to optimize control strategies for TB, indicating a deep understanding of advanced mathematical techniques
- **Infectious Disease Control:** Specialized knowledge in designing control strategies to mitigate the spread of infectious diseases, particularly tuberculosis, contributing to public health efforts.
- **Interdisciplinary Collaboration:** Collaboration with healthcare professionals and epidemiologists to bridge the gap between mathematical modeling and healthcare policy, fostering interdisciplinary research in disease control strategies.

## 2: NUMERICAL APPROXIMATION OF 1-D DIFFUSION EQUATIONS USING EXPLICIT AND IMPLICIT NUMERICAL INTEGRATORS.

### Key Point:

- **Numerical Integration Methods:** Proficiency in employing both explicit and implicit numerical integrator, demonstrating a comprehensive understanding of numerical techniques for solving diffusion equations.
- **1-Dimensional Diffusion Equations:** Specialized knowledge in modeling and solving 1-dimensional diffusion equations, showcasing expertise in a specific area of mathematical research.
- **Algorithmic Efficiency:** Demonstrated capability to optimize and select appropriate numerical methods for efficient and accurate solutions to diffusion equations, reflecting expertise in algorithm design.
- **Numerical Stability Analysis:** Proficient in conducting numerical stability analyses, ensuring the reliability and robustness of numerical solutions in the context of diffusion equations.
- **Interdisciplinary Application:** Ability to apply numerical approximation techniques to real-world problems across various fields, indicating versatility and practical research expertise.

## CERTIFICATES

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### Programming For Everybody (Getting Started with Python)

[ 06/06/2023 – 30/08/2023 ]

I successfully completed the "Programming for Everybody" course on Coursera. Throughout the course, I demonstrated a strong commitment to learning and a solid understanding of programming concepts. With a proactive approach and dedication to mastering the subject matter, I consistently excelled in assignments and assessments. My passion for programming and my ability to apply the knowledge gained make me a promising candidate for future projects and endeavors in the field of programming.

## HONOURS AND AWARDS

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**1st Position in Bsc(Double Math Physics) from Govt Post Graduate college Shakargarh district narowal pakistan awarded with a shield prize by the Principal Prof Dr Amjad Ali Shah of Govt Post Graduate college Shakargarh Narowal Pakistan.**

Govt Post Graduate college shakargarh district narowal Pakistan. [ 14/10/2015 ]

### Quiz Science Compitition

Govt.Higher Secondary school Gujranwala. [ 18/02/2009 ]

I am selecting for quiz competition held in Gujranwala by securing 1st position in all over the school of Govt GD higher school mangari narowal pakistan

### Prime Minister Laptop Scheme

University Of the Punjab Lahore [ 08/10/2017 ]

I am selected and awarded by Prime Minister Laptop Scheme From University of the Punjab Lahore,New Campus.

## HOBBIES AND INTERESTS

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Playing Football,Badminton,watching Movies,Collecing Books,Book Studies.

## RECOMMENDATIONS

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### Supervisor

Name: Dr.Anjum Pervaiz

Phone number: (+92) 3224300911

Email: [anjum@uet.edu.pk](mailto:anjum@uet.edu.pk)

It is my pleasure to recommend **Balal Aalam S/o Muhammad Aalam** for employment with your organization. I have known Balal Aalam for over 3 years, during which time he worked as a student. I have been consistently impressed with Balal attitude and productivity during the time that he has worked with us.

Balal is both very bright and quite motivated. I am confident that he will devote himself to a position with your organization with a high degree of diligence. He is a quick learner and has shown the ability to digest large volumes of knowledge. Balal Aalam has demonstrated the ability to perform research independently.

I recommend Balal Aalam without reservation. I am confident that he will establish productive relationships with your staff and constituents. Please let me know if you need additional information about this outstanding youngman.

**Teacher**

**Name:** Dr.Ali.Ovais

**Phone number:** (+92) 3214853453

**Email:** [ali.ovais@uet.edu.pk](mailto:ali.ovais@uet.edu.pk)

It is my pleasure to recommend **Balal Aalam S/o Muhammad Aalam** for employment with your organization. I have known Balal Aalam for over 2 years, during which time he worked as a student. I have been consistently impressed with Balal attitude and productivity during the time that he has worked with us.

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**Principal**

**Name:** Abdul-Sattar

**Phone number:** (+92) 3006291010

**Email:** [pr.shakargarh@aspirecolleges.edu.pk](mailto:pr.shakargarh@aspirecolleges.edu.pk)

It is certified that **Mr.Balal Aalam** working as a **Head Of Faculty** in **Mathematics Department,Aspire Group of College Shakargarh,District Narowal,Punjab,Pakistan** from **09-08-2019** to till now.He is a part of said institution dedicating his services.During his so far services for the institution,I find him honest,responsible and hardworking.He is a man of deep and wide-ranging understanding of his designation.He always performs his duties with full zeal and commitments.I wish him best of luck for his new journey .

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