

**State Level Inter-Disciplinary Research Workshop on  
Applied Mathematics in Astrophysics & Space Science (AMAPSS-2023)  
17 - 18 March, 2023**

*Jointly organized by*

**DEPARTMENT OF MATHEMATICS AND DEPARTMENT OF PHYSICS  
FACULTY OF SCIENCE  
KHAJA BANDANAWAZ UNIVERSITY, KALABURAGI**

**Venue:** Anatomy Auditorium, Faculty of Medicine, KBN University, Kalaburagi

**CONVENER**

**PROF. NISHAT ARIF HUSSAINI**

**DEAN**

**Faculty of Languages, Arts & Humanities  
Social Sciences and Sciences  
Khaja Bandanawaz University, Kalaburagi**

**COORDINATOR**

**DR. SYED ABRAR**

**Coordinator and Head**

**Department of Botany, Faculty of Science  
Khaja Bandanawaz University, Kalaburagi**

**CO-COORDINATORS**

**DR. M. A. MUJEEB**

**Coordinator and Head**

**Department of Zoology, Faculty of Science  
Khaja Bandanawaz University, Kalaburagi**

**DR. SEEMA JABEEN**

**Lecturer**

**Dept. of Mathematics, Faculty of Science  
Khaja Bandanawaz University, Kalaburagi**

**ORGANIZING SECRETARIES**

**DR. NAZIYA PARVEEN**

**Coordinator and Head**

**Department of Physics, Faculty of Science  
Khaja Bandanawaz University, Kalaburagi**

**MS. SANA AEJAZ**

**Assistant Professor**

**Dept. of Mathematics, Faculty of Science  
Khaja Bandanawaz University, Kalaburagi**

Watch Inauguration & Valedictory Live on  [youtube.com/@KhajaBandanawazUniversity](https://www.youtube.com/@KhajaBandanawazUniversity)



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**Honourable Chancellor**  
Khaja Bandanawaz University  
Kalaburagi  
Karnataka

**Syed Muhammad Ali Al Hussaini**  
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Kalaburagi, Karnataka

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Kalaburagi, Karnataka

## CONVENER

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**DEAN**  
Faculty of Languages, Arts, Humanities  
Social Sciences and Sciences  
Khaja Bandanawaz University  
Kalaburagi, Karnataka

## COORDINATOR

**Dr. Syed Abrar**  
**Coordinator and Head**  
Department of Botany  
Faculty of Science  
Khaja Bandanawaz University  
Kalaburagi

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**Coordinator and Head**  
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Faculty of Science  
Khaja Bandanawaz University  
Kalaburagi

**Dr. Seema Jabeen**  
**Lecturer**  
Department of Mathematics  
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## ORGANIZING SECRETARIES

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Kalaburagi

**Ms. Sana Aeja**  
**Assistant Professor**  
Department of Mathematics  
Faculty of Science  
Khaja Bandanawaz University  
Kalaburagi

## **ADVISORY COMMITTEE**

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**Dr. Nagabasavanna Guragol**, Dean & Chairman, Dept. of Physics, Sharnbasva University

## **ORGANIZING COMMITTEE**

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**Ms. Syeda Afshan Anjum**, Dept. of Zoology, Faculty of Science, KBN University  
**Ms. Farheen Kouser**, Dept. of Mathematics, Faculty of Science, KBN University

## **KHAJA BANDANAWAZ UNIVERSITY**

The Khaja Education Society was established in the year 1958 and registered in the year 1966 under Mysore Societies Registration Act 1960, by Late Padmashree Janab Syed Shah Muhammad Al Hussaini Saheb – the Founder President. The Society encompass more than 24 educational organizations comprising of Primary, Secondary and Higher Educational institutions under the minority society in Gulbarga. It has been working for the upliftment of all, irrespective of caste, creed or religion. Khaja Bandanawaz University got eligible as a Private University during 23 August 2018. Under this esteemed institution, eight faculties i.e, Faculty of Medicine, Engineering & Technology, Law, Arts, Humanities & Social Sciences, Education, Commerce & Management, Languages and Sciences are in current position with their own achievements in teaching and research as well. Under the honourable Chancellor, his Holiness Dr. Syed Shah Khusro Hussaini, honourable Pro-Chancellor Syed Muhammed Ali Al Hussaini and respected Vice-Chancellor, Prof. Ali Raza Moosvi. Khaja Bandanawaz University has a vision to create an environment of motivation and accomplishment across disciplines and harvest knowledge through high quality teaching, research and extension activities leading to the generation of disciplined and intellect students for the betterment of society.

## **ABOUT THE WORKSHOP**

The State Level Inter-Disciplinary Research Workshop on Applied Mathematics on Astrophysics & Space Science (AMAPSS-2023) will provide direction for future research and development by identifying key problems & their viable solutions. To share the concept with the participants of various disciplines related to Mathematics & Physics to acquire the knowledge of recent developments in Astronomy, Star clusters and GAIA Data. To introduce the Essentials of Astronomy, Solar System, Exoplanets, Stars formation and evolution. Big Bang Theory, The Milky way galaxy, the world of galaxies will also be studied.

## **WHO CAN PARTICIPATE?**

- UG and PG Students of Mathematics / Physics
- Engineering students
- Post Doctorate Fellows / Research Scholars / Project Assistants
- Faculty members / Academicians

## Registration Link

<https://forms.gle/tM6DGEiP1dd61tN38>

## Registration fees:

UG/ PG/ Research Students: Rs. 300/- and Faculty / Academicians: Rs. 500/-

(Spot Registration: Rs. 100/- extra)

Bank Details	
Bank name and Branch	Indian Bank, Darga Road Branch Gulbarga
Account Name	Khaja Bandanawaz University General Fund
Account Number	6682975502
IFSC Code	IDIB000D055

**Last Date of Registration:** 16th March, 2023

## Poster Presentation Competition

Poster Presentation competition will be organised on the prescribed themes. The Poster size should be 3 x 4 feet and the content of the poster should include Title of the paper, Affiliation with email ID, Abstract, Introduction, Aim of the research work, Materials and Methods, Results, Discussion, Conclusion and References. The interested participants can send their abstract at [departmentofmathematics.kbn@gmail.com](mailto:departmentofmathematics.kbn@gmail.com) on or before 16<sup>th</sup> March 2023.

## Themes

<ul style="list-style-type: none"><li>• Statistical &amp; Applied Sciences</li><li>• Algebra &amp; Number Theory</li><li>• Analytical Methods for Social Research</li><li>• Applied Mathematics</li><li>• Applied Statistics</li><li>• Mathematical Sciences &amp; Computer Engineering</li></ul>	<ul style="list-style-type: none"><li>• Nanomaterial</li><li>• Material Physics</li><li>• Laser, Optics and Photonics</li><li>• Condense Matter Material</li><li>• Radiation Physics</li><li>• Material Physics</li></ul>
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## Accommodation

Accommodation on payment basis is available and booked upon advance request.

**Contact Details:** Ms. Sana Aejaaz – 80952 06550; Dr. Naziya Parveen: 97401 00767

**Email:** [departmentofmathematics.kbn@gmail.com](mailto:departmentofmathematics.kbn@gmail.com)

## ABOUT THE SPEAKERS



### **Prof. Syed Najamul Hasan**

Department of Mathematics, School of Sciences, Maulana Azad National Urdu University (Central University) Gachibowli, Hyderabad, Telangana-500032, India

**Current Designation/ Involvement:** Professor in the Department of Mathematics, School of Sciences, Maulana Azad National Urdu University (Central University), Hyderabad, Telangana, India.

**Area of Specialization:** Celestial Mechanics & Dynamical Astronomy, Clifford Algebras & its applications

**Ongoing Academic Research/ Projects:** IAU-OAD AstroSprint Project.

<https://www.astro4dev.org/astronomical-data-analysis-lecture-videos>

**Innovation With Field of Study and Collaborative Efforts:** Collaborative research with scientists of IIAP Bangaluru (in observational astronomy) and IIT-Hyderabad (galaxy interaction simulations)

**Academic and Administrative Experience:** More than 25 years of teaching experience at the master's level

**Administrative Experience:** Dean, School of Sciences (May 2016 - May 2019); Dean, Research & Consultancy, MANUU (May 2017-18); Director, IQAC (Jan 2015 - 2016); Dean, Academic Affairs (Nov 2014 - May 16); Head, Department of Mathematics (Oct 2014 - 2019); Chairperson, Arts & Science College, Budgam, Srinagar (2015-16)



### **Dr. Priya Shah Hasan**

Assistant Professor, Department of Physics, Maulana Azad National Urdu University (Central University) Gachibowli, Hyderabad, Telangana-500032, India

**Academic Experience:** The IndoSoviet Cultural Society (ISCUS) scholar (1990-1996) for MSc (Integrated) to the Moscow State University, Russia. IndoFrench Centre for the Promotion of Advanced Research (IFPCAR) (2004-2006) Post Doctoral Fellowship at IUCAA, Pune. Department of Science and Technology (DST) Women Scientist Scheme (2006-2009). DST project under the Women Scientist Scheme (SR/WOSA/PS26/2005) entitled "Photometric studies of star clusters using the 2MASS and observations". International Visitor Leadership Program (IVLP). Invited under the International Visitor Leadership Program (IVLP) by the US Consulate, Hyderabad to visit and interact with American Universities and Research Centres for a period of three weeks in August 2011.



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**Programme Schedule**

**Day 1 - 17-03-2023**

<b>10:00 – 10:30 hrs</b>	Inauguration
<b>10:30 – 11:30 hrs</b>	The Universe – Dr. S.N.Hasan
<b>11:30 – 12:00 hrs</b>	Tea break
<b>12:00 – 13:00 hrs</b>	Observing the Universe – Dr. Priya Hasan
<b>13:00 – 14:00 hrs</b>	Lunch
<b>14:00 – 14:30 hrs</b>	Exoplanets – Dr. S. N. Hasan
<b>14:30 – 15:30 hrs</b>	Hands on session with Kepler Data – Dr. Priya Hasan
<b>15:30 – 16:00 hrs</b>	Tea
<b>16:00 – 17:00 hrs</b>	Panel discussion and Q/A on careers in Astronomy and Space Sciences

**Day 2 - 18-03-2023**

<b>10:00 – 11:15 hrs</b>	Stars & Star Clusters – Dr. Priya Hasan
<b>11:15 - 11:45 hrs</b>	Tea
<b>11:45 – 13:00 hrs</b>	The world of Galaxies – Dr. S. N. Hasan
<b>13:00 – 14:00 hrs</b>	Lunch
<b>14:00 – 15:00 hrs</b>	Hands on session with GAIA data – Dr. Priya Hasan & Dr. S N Hasan
<b>15:00 – 16:00 hrs</b>	Poster Competition for UG/ PG/ Research Scholars
<b>16:00 – 16:15 hrs</b>	Tea
<b>16:30 – 17:30 hrs</b>	Valedictory