## **CURRICULUM VITAE**

NAME PRIYA (SHAH) HASAN

**DATE OF BIRTH** 13 June 1972

**ADDRESS** Flat No 101, Desire's Panorama

MLA Colony, Road No 12

Banjara Hills

Hyderabad 500 034

Email: priya.hasan@gmail.com Ph:9701811881, 9866619519 (Mob)

(040)23306959(Res)

MARITAL STATUS Married

**COMPUTER SKILLS** 

Operating Systems: UNIX, LINUX, Windows

Word Processing: Latex

Image Processing Software: IRAF, IDL Languages: FORTRAN, C, Python.

**LANGUAGES** English, Hindi, Russian, Urdu

## **EDUCATIONAL QUALIFICATIONS**

BOARD	YEAR OF PASSING	%/GRADE	NAME OF INSTITUTE
ICSE	1987	86.67%	Jamnabai Narsee School, Juhu, Mumbai
HSc	1989	78%	D G Ruparel College,
			Matunga, Mumbai
MSc Physics 1996		Grade 4	Physics Department,
(Integrated)		(scale of 5)	Moscow State University,
Spl:Astrophysics			Moscow, Russia
PhD	2004		Department of Astronomy,
			Osmania University,
			Hyderabad 500 007

## SCHOLARSHIPS/GRANTS/AWARDS

• The IndoSoviet Cultural Society (ISCUS) scholar (19901996) 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/PS-26/2005) 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.

## TRAVEL GRANT:

- Department of Science and Technology (DST), International Travel Support (ITS) to present a paper at the conference "From Stars to Galaxies", 2010, at the University of Florida, Gainesville.
- Department of Science and Technology (DST), International Travel Support (ITS) to present a paper at the conference "From Stars to Life", 2013, at the University of Florida, Gainesville.

## GRANT BY US DEPT OF STATE (SIN65012GR245)

To conduct Science Workshops for school children in 2012

## GRANT BY US Educational Foundation (USIEF), Hyderabad

To conduct Workshops for school children in July 2019 to celebrate 50 years of landing on the Moon. (Rs 120,000)

## INTERNATIONAL ASTRONOMICAL UNION(IAU-OAD) SUMMER VISITING PROGRAM

Selected for the IAU-OAD Summer Visting Program at the Harvard-Smithsonian Center for Astrophysics (CfA) in Boston, Massachusetts in July 2015

## INTERNATIONAL ASTRONOMICAL UNION (IAU-OAD) GRANT

Funded to co-organise 'Astronomy Winter School in India', selected by the IAU OAD Task Force 1 (Universities and Research) for a total amount of € 4000 (Euros) in February 2017

#### UGC MINOR PROJECT

Department of Physics, MANUU, Hyderabad Structure and Dynamics in Embedded and Young Star Clusters, 2017 (Rs 105,000)

### INTERNATIONAL ASTRONOMICAL UNION (IAU) GRANT

Funded for registration to attend and present a talk on "Star Formation and its progress in Serpens", 13th Asian-Pacific Regional IAU Meeting (APRIM 2017) at Taipei International Convention Center in Taipei, Taiwan.

# INTERNATIONAL ASTRONOMICAL UNION (IAU) TRAVEL GRANT (€ Euro 1100)

Funded for registration and travel to attend and present 2 talks and 3 posters at the XXXth General Assembly of the International Astronomical Union in Vienna, Austria from 20 to 31 August 2018.

## INTERNATIONAL ASTRONOMICAL UNION(IAU-OAD) GRANT FOR CLEAR SKIES PROJECT

Selected for the IAU-OAD Grant for Project entitled "Clear Skies" in Hyderabad, 2019 (€ 3000 Euros)

#### **ZUBIN KEMBHAVI AWARD**

2019 Awarded to Niruj Ramanujan and the *POEC* (Secretary). At the 37th Meeting of the Astronomical Society of India, Christ (Deemed to be University), Bengaluru

### **TEACHING EXPERIENCE:**

February 2015 Maulana Azad National Urdu University, Gachibowli, Hyderabad

February 2010-2015 Mufakkham Jah College of Engineering and Technology, Hyderabad

(i) Engineering Physics

July 2009 November 2009 Department of Astronomy, Osmania University, Hyderabad, India

MSc (Astrophysics), MSc (Astrophysics)

(i) Stellar Structure and Evolution

July 2008 March 2009 Department of Astronomy, Osmania University, Hyderabad, India

MSc (Astrophysics)

- (i) The Milky Way Galaxy and Interstellar Matter
- (ii) Galaxies and the Universe

July 2007 Mar 2008 Department of Astronomy, Osmania University, Hyderabad, India MSc (Astrophysics)

(i) Stellar Structure and Evolution

July 2006 Dec 2006 Department. of Astronomy, Osmania University, Hyderabad, India.

MSc (Astronomy) and MSc (Astrophysics)

(i) The Galaxy and Interstellar Matter

July 2004 Dec 2004 Department. of Astronomy, Osmania University, Hyderabad, India.

MSc (Astronomy)

(i) Radio Astronomy

July 2003 Mar 2004 Department of Astronomy, Osmania University, Hyderabad, India

MSc (Astronomy) and MSc (Astrophysics)

- (i) Stellar Structure and Evolution
- (ii) Stellar Spectroscopy
- (iii) Photometry & Spectroscopy (Practicals)

July 2002 – May 2003 Women's College, Koti, Hyderabad

BSc (Physics)

- (i) Thermodynamics
- (ii) Electricity and Magnetism
- (iii) Electronics and Modern Physics (Practicals)

July 2001 – Mar 2002 Physics Department, Osmania University, Hyderabad, India MSc (Physics)

- (i) Statistical Mechanics
- (ii) Programming in C
- (iii) Nuclear Physics

Sep 2000 Mar 2001 Department of Astronomy, Osmania University, Hyderabad, India

MSc (Astronomy) and MSc (Astrophysics)

- (i) Stellar Structure and Evolution
- (ii) Sun and Stars

June 1996 June 1997 Shadaan Degree College, Khairtabad, Hyderabad

BSc (Physics)

- (i) Electricity and Magnetism
- (ii) Thermodynamics and Optics

## **PUBLICATIONS**

- 1) V G Surdin, Shah, P, Chemical Enrichment of halo stars due to accretion of interstellar dust, Transactions of the Soviet Astronomical Society, 1995, 8, 97102, ISSN: 1055-6796 / eISSN: 1476-3540
- 2) Hasan, Priya, Kilambi, G C, Near Infrared Photometry of NGC 2453, BASI, 2001, 29, 329333, **ISSN**: 0304-9523, Online **eISSN**: 2249-9601
- 3) Hasan, Priya, Kilambi, G C, Near Infrared Photometry of NGC 1960, BASI, 2002, 30, 653655, Print **ISSN**: 0304-9523, Online **eISSN**: 2249-9601
- 4) Hasan, Priya, Kilambi, G C, Near Infrared Photometry of NGC 2384, BASI, 2003, 31, 383386, Print **ISSN**: 0304-9523, Online **eISSN**: 2249-9601
- 5) Hasan, Priya, Near Infrared Photometry of the young star clusters NGC 1960, NGC 2453 and NGC 2384, BASI, 2005, 33, 151, Print **ISSN**: 0304-9523, Online **eISSN**: 2249-9601
- 6) Hasan, Priya, Near Infrared Photometry of the young star clusters NGC 1960, NGC 2453 and NGC 2384. BASI, 2005, 33, 311, Print **ISSN**: 0304-9523, Online **eISSN**: 2249-9601
- 7) Hasan, Priya, Morphologies of AGN host galaxies using HST/ACS in the CDFS-GOODS field, Astrophysics and Space Science, 2007, Vol 312, No12, 63-77, ISSN: 0004-640X (Print) Online eISSN: 1572-946X
- 8) Hasan, Priya, Kilambi, G C & Hasan S N, Evolutionary Studies of Young Star Clusters: NGC 1960, NGC 2453 and NGC 2384, Astrophysics and Space Science, 2008, Vol 313, No 4., 363-371, **ISSN**: 0004-640X (Print) Online **eISSN**: 1572-946X
- 9) Priya Hasan, S N Hasan & Urmi Shah, The structure and formation of young star clusters: King 16, NGC 1931, NGC 637 and NGC 189, Astrophysics and Space Science, 2008, Vol 318, 1-2, 2533., **ISSN:** 0004-640X (Print) Online **eISSN:**1572-946X
- $10)\,Hasan,\,Priya,\,\&\,Hasan,\,S\,\,N\,$ , Dynamical Evolution of a young stellar aggregate in the presence of a massive shell of gas using Nbody simulations , 61, Proceedings of the 25 th meeting of the Astronomical Society of India, Special Issue, BASI, 2008.
- 11) Hasan, Priya, & Kembhavi, Ajit, Morphologies of AGN host galaxies using HST/ACS in the CDFSGOODS field, 37, invited talk, proceedings of the 25 th meeting of the Astronomical Society of India, Special Issue, BASI, 2008, Print **ISSN**: 0304-9523, Online **eISSN**: 2249-9601
- 12) Hasan, Priya, & Hasan, S N , Multicolor observations of the young clusters NGC 1931, NGC 189 and NGC 637(poster at NSSS2008, submitted to BASI, 2008)
- 13) Hasan, Priya, Hasan S N & Shah, Urmi, Is mass segregation in star clusters primordial?, 27th Meeting of the Astronomical Society of India 2009 February 18-20, Bangalore.
- 14) Hasan, Priya, & Hasan, S N, Multivariate Analysis of Star Clusters, 27th Meeting of the Astronomical Society of India 2009, February 18-20, Bangalore.
- 15) Hasan, Priya, & Hasan, S N, The dynamics of mass segregation in star clusters, Interstellar Matter and Star Formation: A Multiwavelength Perspective, ASI Conference Series, 2010, Vol. 1, pp 229–231, Edited by D. K. Ojha, **ISBN**: 978-81-8465-441-7.
- 16) Hasan, Priya, The Structure and Dynamics of Star Clusters: Observations and

- Simulations, From Stars to Galaxies: Connecting our Understanding of Star and Galaxy Formation, University of Florida, Gainesville, Florida, USA, 7-10 April 2010. Online at http://conference.astro.ufl.edu/STARSTOGALAXIES, id.82
- 17)Hasan, Priya, & Hasan, S N, Mass segregation in diverse environments, Monthly Notices of the Royal Astronomical Society, 2011, Volume 413, Issue 4, pp. 23452357, **ISSN** 1365-2966 Print Online **eISSN**: 0035-8711
- 18) Hasan, Priya, Flamingos nearinfrared study of the Serpens cloud, Recent advances in Star Formation, Astronomical Society of India Conference Series, Vol. 4, p. 29, 2012, **ISBN** 978-81-922926-0-1
- 19) Shah, Priya, Catch them young: Embedded clusters in Serpens, From Stars to Life, J. Tan (eds.), eproceedings: http://conference.astro.ufl.edu/STARSTOLIFE 20)Dynamics of Star Clusters: Observations and simulations, S. N. Hasan and Priya Hasan, New Advances in Physics, Vol. 8, No. 1, January-June 2014, pp. 63-71, ISSN: 0974-3553
- 22)Hasan, Priya, Hasan, S N, The Initial Mass Function of Open Star Clusters, New Advances in Physics, Vol. 8, No. 1, January-June 2014, pp. 73-80, **ISSN**: 0974-3553
- 23)Hasan Priya, Hasan, Eeshan, Lada, Elizabeth, New embedded clusters in Serpens using the FLAMINGOS NIR Survey, 32th Meeting of the Astronomical Society of India 2014, IISER, Mohali, India
- 24) A.L. Tadross, R. Bendary, P. Hasan, A. Essam, A. Osman, CCD BVRI and 2MASS Photometry of the Poorly Studied Open Cluster NGC 6631, 2014, NRIAG Journal of Astronomy and Geophysics, Volume 3, Issue 2, p. 205-209.
- 25)Photometric Studies of NGC 6631 and Mayer 2, Abstract:id SG-18, 33rd Meeting of the Astronomical Society of India (ASI) was hosted by the National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), Pune, February 17-20, 2015.
- 26) P Nagamani, Hasan, Priya, S N Hasan, Luminosity decomposition profiles of pairs of spiral galaxies, Abstract:id EA-35, 33rd Meeting of the Astronomical Society of India (ASI) was hosted by the National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), Pune, February 17-20, 2015.
- 27) Hasan, Priya, The Thirty Meter Telescope, New Advances in Physics, Vol. 9, No. 1, March 2015, pp. 81-87, **ISSN**: 0974-3553
- 28) Hasan, S N, Hasan, Priya, Nbody simulations of Clusters and Galactic Dynamics, New Advances in Physics, Vol. 9, No. 1, March 2015, pp. 7-13, **ISSN**: 0974-3553
- 29)Skidmore, et al, Thirty Meter Telescope Detailed Science Case: 2015, Research in Astronomy and Astrophysics, 15,12, 1945-2140, **ISSN**: 1674-4527
- 30) Eeshan Hasan, Priya Hasan, Star Formation and its progress in Serpens, 34th Meeting of the Astronomical Society of India (ASI) was hosted by University of Kashmir at Srinagar, 10-13 May, 2016, Abstract id: SG-39.
- 31) Priya Hasan, An Xray Survey of the Young Stellar Population of NGC 281, 34th Meeting of the Astronomical Society of India (ASI) was hosted by University of Kashmir at Srinagar, 10-13 May, 2016, Abstract id: SG-41.

- 32)Priya Shah, Triggered Star Formation at different spatial scales in NGC 281, Star Formation 2016, 21 26 August 2016, University of Exeter, Devon, Abstract id: C38
- 33) M. Safonova, D. Mkrtichian, Hasan P, Sutaria F, Brosch N, Gorbikov G, Joseph P, Search for low-mass objects in the globular cluster M4. i. detection of variable stars, 2016, Astronomical Journal, 151, 27, **ISSN**: 0004-6256
- 34)Hasan, P, Embedded Clusters: The sites for star formation, New Advances in Physics, Vol. 10, No. 1, June 2016, pp. 41-52, **ISSN**: 0974-3553
- 35) Hasan, Priya, Starlight in Darkness, Resonance, Vol 22, Issue 3, March 2017. **ISSN**: 0971-8044(print), **eISSN**: 0973-712X (online)
- 36) Hasan, Priya, Spectroscopic Study of NGC 281 West, Proceedings of 1st BINA workshop, Nainital, Bulletin de la Société Royale des Sciences de Liège, Vol. 87, Actes de colloques, 2018, p. 207 215 (ISSN: 0037-9565, eISSN:1783-5720)
- 37) T Swetha, S N Hasan, Priya Hasan, Effect of gas physics on the thickening of disk in multiple minor mergers, Abstract id: EA-40 36<sup>th</sup> Annual Meeting of the Astronomical Society of India (ASI), Osmania University at Hyderabad, 5 9 February, 2018
- 38)Nagamani P, S N Hasan, Priya Hasan, Correlation between Structural properties of galaxies in coma clusters., Abstract id: EA-43, 36thAnnual Meeting of the Astronomical Society of India (ASI), Osmania University at Hyderabad, 5 9 February, 2018
- 39)Priya Hasan, The Enigma of Star Formation at High Galactic Latitudes, Abstract id: SG-46, 36thAnnual Meeting of the Astronomical Society of India (ASI) will be hosted by Osmania University at Hyderabad, 5 9 February, 2018
- 40)Niruj Ramanujam, Samir Dhurde, T.V. Venkateswaran, Rathnasree Nandivada, Aniket Sule, Priya Hasan, National campaigns in India: what do they teach us?, Communicating Astronomy with the Public (CAP), 2018
- 41) Bendary, R., Tadross, A., Hasan, P., Osman, A., and Essam, A., Optical and Near-Infrared Photometric Study of NGC 6724, Research in Astronomy and Astrophysics, RAA, 2018, Vol. 18 No. 2, **ISSN**: 1674-4527, **eISSN**: 2397-6209
- 42) Hasan, Priya, The Enigma of Star Formation at High Galactic Latitudes, New Advances in Physics, Vol. 12, No. 1, June 2018, pp. 29-35, **ISSN**: 0974-3553
- 43) Hasan, Priya, GAIA: The 3D Milkyway Mapper, Resonance, Vol 24, Issue 4, April 2019 ISSN: 0971-8044(print), eISSN: 0973-712X (online)
- 44) Tadross AL, Bendary R, Hasan P. A photometric study of the nonrelaxed cluster

- Mayer 3. Astron. Nachr. 2018; Vol 339, Issue 6, 465-471, <a href="https://doi.org/10.1002/asna.201813458">https://doi.org/10.1002/asna.201813458</a>, ISSN: 0004-6337, e-ISSN: 15213994
- 45) Priya Shah, Kinematics and Dynamics of Young Star Clusters with TMT, To be published in IAU 347 Proceedings, Early Science with ELTs (EASE), IAU, GA, Vienna, 2018

arXiv:1809.09917 [astro-h.SR]

- 46) Hasan, S., Shah, P., & Nagamani, P. (2018). Dwarf Galaxies in the Core of Coma Cluster. c, 14(S344), 417-419. doi:10.1017/S1743921318006750
- 47)Priya Shah, In the Pursuit of Astronomy Education and Outreach in India, To be published in Astronomy in Focus, FM 15: Astronomy for Development, IAU, GA, Vienna, 2018
- 48) Priya Shah, Standardization in the UV with Astrosat and its issues related to star cluster studies, To be published in Astronomy in Focus, FM 12: Calibration and Standardization Issues in UV-VIS-IR Astronomy, IAU, GA, Vienna, 2018, arXiv:1810.03187
- 49) Priya Shah, The Open Universe and Data-driven Astronomy, To be published in Astronomy in Focus, FM 14: IAU's role on global astronomy outreach, the latest challenges and bridging different communities, IAU, GA, Vienna, 2018, arXiv:1810.03318
- 50)Priya Hasan, 37<sup>th</sup> Annual Meeting of the Astronomical Society of India (ASI), Christ (Deemed to be University), Bengaluru, 18 22 February 2019, Abstract id: SIG-37, Diffuse Xray Emission in NGC 281.
- 51) Swetha Thakkalapally, Priya Hasan and S. N Hasan, Effect of the gas percentage on the thickness of the galactic discs during minor mergers using hydrodynamical simulations Galactic Dynamics in the Era of Large Surveys, Proceedings IAU Symposium No. 353, 2019, M. Valluri, & J. A. Sellwood, 2019 International Astronomical Union

(submitted)

#### **MSc THESIS**

Dynamical Evolution of an open cluster in the presence of an expanding shell with secondary star formation taking place on it.

(Nbody simulations using the AhmadCohen code by S. Aarseth)

## PhD THESIS

Near Infrared Photometry of the Young Star Clusters NGC 1960, NGC 2384 and NGC

## RESEARCH COLLABORATIONS

## Physical Research Laboratories, Ahmedabad, India:

Collaboration with Prof K C Baliyan on Infrared Photometry of Young Stars Clusters (PhD Thesis )

InterUniversity Center for Astronomy and Astrophysics (IUCAA), Pune, Institute of Astrophysics (IAP), Paris, Osmania University, Hyderabad, Pt. Ravishankar Shukla University, Raipur:

Collaboration on project entitled "The AGNSpheroid Connection" under Prof Ajit Kembhavi, Dr A N Ramprakash IUCAA, Pune in collaboration with Prof S K Pandey, Pt. Ravishankar Shukla University, Raipur, Dr S N Hasan, Osmania University, Hyderabad and Prof B. Guiderdoni CRAL, Lyon, France and Prof. F. Hammer, Meudon, France.

## **Indian Institute of Astrophysics, Bangalore**

Collaboration with Prof Prajval Shastri and Dr Margarita Safranova on Microlensing in Globular Clusters.

## University of Florida, Gainesville, Florida:

Collaboration with Prof Elizabeth Lada using the world's first nearIR multiobject spectrometer called FLAMINGOS, on the Kitt Peak 2.1m and 4m telescopes to obtain sensitive nearIR imaging surveys and for the first time extensive nearIR spectral classifications for stars in GMCs.

## National Research Institute of Astronomy and Geophysics (NRIAG), Egypt

Collaboration with Kottamia Observatory staff (Dr Reda Bendary, Prof. A. Essam) and Prof Charles Bonnatto, **Brazil,** on observations with star clusters and variable stars.

Thirty Meter Telescope, TMT, ISDT: Member of the International Science Driven Team, "Star and Planet Formation" of Thirty Meter Telescope, Hawaii

## **Harvard Smithsonian Center for Astrophysics**

Collaboration with Prof Scott Wolk on Star Formation Studies in NGC 281

### WORKSHOPS/CONFERENCES ATTENDED/TALKS:

**December 2019,** Participant, The 1st Shaw-IAU Workshop on "Astronomy for Education, Paris, France

November 2019, "The System of Open Star Clusters Revisited", PES University, Department of Computer Science & Engineering Modeling Machine Learning and Astronomy (MMLA), Bangalore

February 2019, "Zubin Kembhavi award: POEC and its activities", 37th Meeting of the Astronomical Society of India, Christ (Deemed to be University), Bengaluru

February 2019, "Experiments for Astronomy teaching", 37th Meeting of the Astronomical Society of India, Christ (Deemed to be University), Bengaluru

February 2019, "Physics of Stars", Astronomy Exposure Camp, Jawaharlal Nehru Planetarium, Bengaluru

January 2019, Talk on "Spiral Structure and Gaia" at the 49th Saas-Fee Advanced Course, "The Milky Way in the Gaia Era", Saas-Fee, Switzerland, 27 January to 2

February 2019

January 2019, Talk on "Gaia and the Velocity Dimension" and "Gaia Tutorial with TopCat" at Conference on Formation and Evolution of Star Clusters, 21-24 January, 2019, Maulana Azad National Urdu University, Hyderabad, India August, 2018, Talks on "Kinematics and Dynamics of Young Star Clusters with TMT" and "Standardization in the UV with Astrosat and its issues related to star cluster studies" and posters on "In the Pursuit of Astronomy Education and Outreach in India", "The Open Universe and Data-driven Astronomy" and "Dwarf Galaxies in the core of Coma Cluster" at the XXXth General Assembly of the International Astronomical Union in Vienna, Austria from 20 to 31 August 2018.

July, 2018, "Stellar Cluster Studies", Invited Talk at Certificate Course in Astronomy and Astrophysics, Dept of Astronomy, Osmania University, Hyderabad

June 2018, "Optical Astronomy Experiments", moderator and talk at "Astronomy themed Experiments", IUCAA, Pune

February 2018, "Falakiyaat aur Hum", talk at Urdu Science Congress, MANUU, Hyderabad

January 2018, "The Enigma of Star Formation at High Galactic latitudes", G P Birla Physics and Astronomy Meet, Invited Talk, Birla Science Center, Hyderabad. November 2017, "Astronomy Outreach and Education in India: The steps to the future", United Nations/Italy Workshop on the Open Universe Initiative Vienna, Austria, 20-22 November.

November 2017, "Early Dynamical Evolution of Star Clusters", TMT Science Forum, Mysore, India.

July, 2017, "Space Astronomy", Certificate Course in Astronomy and Astrophysics, Dept of Astronomy, Osmania University, Hyderabad

July, 2017, "Star Formation and its progress in Serpens", 13th Asian-Pacific Regional IAU Meeting (APRIM 2017) at Taipei International Convention Center in Taipei, Taiwan.

March 2017, "A Tale of Two Populations: NGC 281", 35th Meeting of the Astronomical Society of India, Birla Institute of Science and Technology, Jaipur, India

March 2017, "Saath Satve Aasman: Together to the Seventh Heaven", 35th Meeting of the Astronomical Society of India, Invited Talk, Birla Institute of Science and Technology, Jaipur, India

March 2017, "Physics of Stars", Astronomy Exposure Camp, Global Vivekananda University, Jaipur, India

February 2017, "GAIA: 3D Mapping of the Universe" and "Triggered Star Formation" Winter School on Astronomy and Workshop on Star Clusters, "Astronomy at the Deccan", 20-23 February, 2016, at Birla Science Center, Hyderabad, in collaboration with the Department of Physics and Astronomy, University of Western Ontario, Canada.

January 2017, "Space Astronomy", Invited Talk at Symposium on Space Dynamics, 104 Indian Science Congress, Sri Venkateshwara University, Tirupati, India

December 2016, "Star and Planet Formation: Insights and Intracasies", IIST, Thiruvanthapuram, India invited talk on "Star Formation and its progress in Serpens"

November 2016 "Instrumentation and Science with 3.6m DOT and 4m ILMT Telescope", Nainital, India invited talk on "Spectroscopy of NGC 281 West"

August 2016, "Star Formation 2016", 21 - 26 August 2016, University of Exeter, Devon, UK poster on "Triggered Star Formation at different spatial scales in NGC 281"

Feb, 2016, G P Birla Physics and Astronomy Meet, *Embedded Clusters: The Sites* of *Star Formation*, Invited Talk, Birla Science Center, Hyderabad.

Feb, 2016, Winter School on Astronomy and Workshop on Star Formation, "Astronomy at the Taj", Anand Engineering College Agra, in collaboration with the Department of Physics and Astronomy, University of Western Ontario, Canada, 3 Talks, "Eyes to the Skies", "Good and Bad Astronomy", "The Evolution and Dynamics of Star Clusters".

Feb, 2016, Invited talk and Panel discussion "*Mathematics Education in Astronomy*", Mathematics Education and Social Justice Concerns, Tata Institute of Social Sciences, Hyderabad

December 2015 "Early Dynamical Evolution of Star Clusters", International Conference on Celestial Mechanics & Dynamical Astronomy, Maulana Azad National Urdu University, Hyderabad, India

December 2015, "Proposed Student Projects", Astronomy Nurture Camp 2015, Maulana Azad National Urdu University (MANUU), Gachibowli Hyderabad.

Nov, 2015, "Indo-French Astronomy School for Optical Spectroscopy" at IUCAA, Pune.

July 2015, Invited talk entitled, " $Event\ Files:\ A\ Month\ at\ the\ CfA$ " at the Harvard-Smithsonian Center for Astrophysics (CfA) in Boston, Massachusetts

June, 2015, Invited talk talk entitled, "Sister Clusters: NGC 3293 and NGC 3324", for presentation at the Thirty Meter Telescope (TMT) Forum, Washington DC

March 2015, Neighbourhood Astronomy Meet, Raman Research Institute, Bangalore, India

February 2015, 33 rd Meeting of the Astronomical Society of India, National Centre for Radio Astrophysics (NCRA) of the Tata Institute of Fundamental Research (TIFR), Pune, (2posters).

January 2015, **The Thirty Meter Telescope**, "Physics and Astronomy Meet 2015" at the G.P. Birla Centre, Hyderabad (Invited Talk)

November 2014, TMT India: Challenges and Capabilities, ARIES, India, Talk on ISDT: Star and Planet Formation

November 2014, Current trends in Near Infrared Astronomy in India.TIFR Balloon Facility, Hyderabad, India, Talk on *Star Formation in NGC 3293* 

March 2014, Meeting of the Astronomical Society of India, IISER, Mohali, India (Poster)

January 2014, *Mass Segregation in Star Clusters*, Invited talk, National Research Institute of Astronomy and Geophysics, Egypt

January 2014, *IRAF and Image Processing*, *A course of 6 invited talks*, National Research Institute of Astronomy and Geophysics, Egypt

November 2013, *The Solar System*, Invited Talk, address in the State Level Master Resource Persons Training Programme on Comet, Sundarayya Vignana Kendram, Bagh Lingampally, Hyderabad

November 2013, *The IMF of Open Star Clusters*, Invited Talk, Frontiers of Fundamental Physics, Birla Science Center, Hyderabad

April 2013, *From Stars to Life*, University of Florida, Gainesville, Florida (1 Poster), USA

May, 2012, Workshop on Transit of Venus, Osmania University, Hyderabad (2 Invited Talks: *Eyes to the Skies & Lifecycles of Stars*)

August, 2011, Nanotechnology, CBIT, Hyderabad

August 2011, *Stars and Clusters*, Invited Talk, Suffolk University, Boston, Mass, USA

August 11, Why study Star Clusters?, Invited Talk, California Institute of Technology, Pasadena, California, USA

June 2011, Recent advances in Star Formation, *Flamingos nearinfrared study of the Serpens cloud*, Indian Institute of Astrophysics, Bangalore (Invited Talk).

April 2010, *From Stars to Galaxies*, University of Florida, Gainesville, Florida (1 Poster), USA

January 2010, Frontiers in Statistics, University of Hyderabad, Invited Talk "  $\boldsymbol{A}$  Statistical Study of Star Clusters"

October 2009, Star Formation and ISM Workshop, TIFR Hyderabad, India (*1 Poster*) February 2009, Meeting of The Astronomical Society of India, Indian Institute of Astrophysics, Bangalore. (*2 Posters*)

October 2008, Image Processing and Astrophotography Workshop, Nehru Planetarium, New Delhi, Invited talk "*Unleashing the potential of archival data*".

July 2008, Meeting on IUCAA Girawali Observatory (IGO), Invited Talk, IUCAA, Pune

February 2008 National Space Science Symposium (NSSS2008), Radio Astronomy Centre, Ooty, Tamilnadu (Poster)

January 2008 AMDA08 Applied Multivariate Data Analysis in Statistics, Osmania University, (Invited Talk)

November 2007 National Meeting on Infrared Astronomy (Invited Talk)

October 2007 Astrophysics with Virtual Observatories, IUCAA, Pune.

July 2007 Astrostatistics School organized by Penn State University & IIA at Kavalur February 2007 IndoFrench Workshop on Data Analysis in Astronomy, IUCAA, Pune (Resource Person)

2007 Meeting of The Astronomical Society of India, Osmania University, Hyderabad : (Invited Talk and Poster)

2006 PDFs' Annual Evaluation Seminar, IUCAA, Pune (Talk) on Morphologies

## of AGN Host Galaxies

2006 Khandala Meeting, IUCAA, Pune (Talk) on *The G in AGN* 

2006 Introductory Workshop on Astronomy & Astrophysics, Osmania University, Hyderabad (Talk) on *Lives and Death of Stars* 

2005 European Association for Research in Astronomy Workshop, IAP, Paris (Talk) on *AGN Host Galaxies* 

2005 Refresher Course in Astronomy & Astrophysics, IUCAA, Pune (Talks) on Computers & Astronomy, Archival Data and its potential.

2005 Meeting of The Astronomical Society of India, ARIES, Nainital: *Oral Thesis Presentation* 

2005 Introductory Workshop on Astronomy & Astrophysics, Osmania University, Hyderabad (Talk) on *Star Clusters* 

2004 Workshop on Decadal celebrations of the PRL Infrared Telescope (Talk) on *Near Infrared Photometry of Star Clusters* 

2004 Tata Institute of Fundamental Research (TIFR), Mumbai (Talk) on *Near Infrared Photometry of Star Clusters* 

2004 Workshop on Telescope Automation and Data Retrieval, IUCAA, Pune

2003 Mini Workshop on Photometry, IUCAA, Pune (Talk) on *CCD Photometry and Demonstration on IRAF* 

2003 Meeting of The Astronomical Society of India, Trivandrum, Kerala (*Poster* Presentation)

2002 Meeting of The Astronomical Society of India, IUCAA, Pune (Poster Presentation)

2001 Young Astronomers Meet (YAM), IUCAA, Pune (Talk) on Star Clusters.

2000 IndoFrench School on Starbursts and Galaxy Interaction, IUCAA, Pune.

2000 Meeting of The Astronomical Society of India, Gorakhpur, UP (Poster Presentation)

2000 Workshop on Automated Data Analysis, IUCAA, Pune

1999 Mini workshop on Gamma Ray Bursts, IUCAA, Pune

1999 SERC School on Low Frequency Radio Astronomy, NCRA, Pune

1997 Meeting of The Astronomical Society of India, Physical Research Laboratory, Ahmedabad

## POPULAR TALKS, RADIO TALK AND TV PRESENTATIONS

August 2019, "The Elegant Universe and its Creation", Hyderabad Science Society, Science and the City Meeting, Hyderabad

August 2019, "The Indian Space Program", Navodaya Leadership Institute (NLI), Rangareddy, Hyderabad

July 2019, "Indian Space Program", MG Govt School, Hyderabad

July 2019, Workshop celebrating 50 years on Moon, Birla Science Center, Hyderabad

July 2019, Workshop celebrating 50 years on Moon, Phoenix Arena, Hyderabad July 2019, "This Amazing Universe", Navodaya Leadership Institute (NLI), Rangareddy, Hyderabad

June 2019, "Archival Data and Virtual Astronomy Tools", "Gaia: The 3D Milky Way Mapper", "Possible projects using Gaia and other archival data in stellar astrophysics", Astronomy Boot Camp, Nehru Planetarium, New Delhi, India May, 2019, "Skywatch", A free skywatch workshop for all, Phoenix Arena, Hyderabad

May, 2019, "Telescope Making Workshop", A free astronomy workshop for students Talks followed by hands-on session on making telescope, Phoenix Arena, Hyderabad May, 2018 "Astronomy Workshop (Optics)", Summer Camp, LaMakaan,

Hyderabad

May, 2018 "Astronomy Workshop (Basic Astronomy)", Summer Camp, LaMakaan, Hyderabad

May, 2019, "Bapu Khagol Mela", IZM School, Moula Ali, Hyderabad

April, 2019 "The Shadow of a Black Hole", Aurora Degree College, Chikaddpally, Hyderabad

February 2018, "Astronomy-Our Universe", Invited Talk at Inaugural of Sci-Connect 19, St Mary's College, Hyderabad

December 2018, "Optics", MG Govt School, Hyderabad

October 2018, "Gravitational Waves – Ripples in Space-Time", Do Science, Sanjeeviah Park, Hyderabad

July 2018, "Simulating the Sky using Stellarium", St Anns College, Hyderabad July 2018, "Lunar Eclipse" Govt School, Hyderabad

July 2018, "Star Cluster Studies", Foundations of Astronomy and Astrophysics, Certificate Course in Astronomy & Astrophysics, Department of Astronomy, Osmania University, Hyderabad.

July 2018, "*The Stars and Beyond*" - A free astronomy workshop for students and others, Pheonix Arena, Hyderabad

May, 2018, 'Remembering Hawking', British Council, Hyderabad

May, 2018 'Zero Shadow Day ', LaMakaan, Hyderabad

April, 2018, 'Remembering Hawking', LaMakaan, Hyderabad

March, 2018 "Zero Shadow Day Teacher Training Workshop" Pondicherry

February, 2018 "*eLearning in Physics*", talk at National Conference on E-Learning and E-Technology, MANUU, Hyderabad

February, 2018 "Careers in Astronomy", Aurora Degree College, Chikaddpally, Hyderabad

February, 2018 "Astronomy Exposure Camp" for Teachers, Osmania Model School, Hyderabad

January 2018, "Copper Moon Rising", LaMakaan, Hyderabad

September 2017, "Indian Space Advancements", Rajiv Gandhi University of Knowledge Technologies, Basara, Telangana

July 2017, "Space based telescopes", Foundations of Astronomy and Astrophysics, Certificate Course in Astronomy & Astrophysics, Department of Astronomy, Osmania University, Hyderabad.

April, 2017"Careers in Astronomy", PAGE, Hyderabad (3 talks)

- March, 2017'Zero Shadow Day Teacher Training Workshop" Pondicherry
- February, 2017 "Astronomy Exposure Camp" for Teachers, Jaipur
- 2017, February Indian Space Program, LaMakaan, Hyderabad
- 2016, October, To commemorate the World Space Week, with the U.S. Consulate General Hyderabad organized a program on **Space and Science** for the students of Safdaria Girls' High School, Hyderabad
- 2016, March, Star and Planet Formation, PAGE, Hyderabad
- 2016, March, *Origins: Planet and Star Formation* at Friends on Same Wave Length (FOSWL), Hyderabad.
- 2016, March, *Gravitational Waves*, ICFAI Foundation for Higher Education, Hyderabad
- 2016, March, Gravitational Waves, St Francis College, Begumpet, Hyderabad
- 2016, February, Gravitational Waves, LaMakaan, Hyderabad
- 2015, October, *The Sky is the Lower Limit*, Invited talk at Birla Institute of Technology (BITS) Hyderabad
- 2015, August, The Amazing Universe, Niraj International School, Hyderabad
- 2015, May, *Starry Nights*, Training for Forest Officers, AP Forest Academy, Hyderabad
- 2015, April, *Starry Starry Nights*, PAGE, Hyderabad
- 2015, February, *The Thirty Meter Telecope*, LaMakaan, Hyderabad
- 2015, February, *From Dark Clouds to Black Holes*, Vigyan Jyothi College of Engineering, VJIT, Hyderabad
- 2014, November: The Elegant Universe, St John School, Neredmet, Hyderabad
- 2014, The Lives of Stars O S Junior College, Barkas, Hyderabad
- 2014, September, Mangalyaan, LaMakaan, Hyderabad
- 2014, 3 Day Astronomy Workshop at Nasr School, Hyderabad
- 2013, December, *The Goldilocks Enigma: The Miracle of Life*, St Francis College, Begumpet, Hyderabad
- 2013, November, *The Elegant Universe*, Wednesday Womens Club, Hyderabad
- 2013, September, *Navigating your way with the stars*, Training for Forest Officers, AP Forest Academy, Hyderabad
- 2012, December, *Cosmic Fingerprints: Astronomical Spectroscopy* (December 12 2012), Organised, conducted and gave talks in a workshop for children above 12 and adults
- 2012, October, *Monsoon Camp in Astronomy 2*: Astronomy is Looking Up (October 6,7 2012), Organised, conducted and gave talks in 2 day workshop for children above 12 and adults in collaboration with the US Consulate, Hyderabad
- 2012, September, *Monsoon Camp in Astronomy 1*: Contact (September 22, 23 2012), Organised, conducted and gave talks in 2 day workshop for children above 12 and adults in collaboration with the US Consulate, Hyderabad
- 2012, *Lifecycles of Stars*, Invited Lecture, at Venus Transit Workshop, Department of Astronomy, Osmania University, Hyderabad
- 2012, *Eyes to the Skies*, Invited Lecture, at Venus Transit Workshop, Department of Astronomy, Osmania University, Hyderabad
- 2012, Origins at Multiple Scales, A three lecture series, Lamakaan Hyderabad

- 2012, *Look up to the Skies*, Enrich Worshop, Greater Hyderabad Adventure Club (GHAC), Hyderabad
- 2012, *The Lives of Stars*, Enrich Worshop, Greater Hyderabad Adventure Club (GHAC), Hyderabad
- 2011 Life on Earth & Beyond, All India Radio Talk
- 2010 Is Anybody out there? The search for life in Outer Space, Invited Talk, Vasavi Hospital, Hyderabad
- 2010 *Eyes to the Skies*, Workshop including a lecture and demonstration using kits on telescope making
- 2009 The Lord of the Rings: Saturn, Little Flower School, Hyderabad
- 2007 Aurora College, Hyderabad, India, Talk on Interdisciplinary Studies, Fractals
- 2006 Lecture on *Lifecycles of Stars* for EMRC, Hyderabad to be telecast on the UGC channel, India.
- 2006 *Learning Object Repositories* in Astronomy for the EMRC website featuring answers to questions in Astronomy
- 2005 Aurora College, Hyderabad, India, Talk on *The Solar System*
- 2004 Aurora College, Hyderabad, India, Talk on *The Life and Death of Stars*
- 2004 Women in Science, Birla Planetarium, Hyderabad , Talk on My work in Astronomy

### **UGC-HRD COURSES:**

**Orientation Course** organized by Academic Staff College, Osmania University, Hyderabad, August 2014.

Orientation Programme on "Open and Distance Learning Multimedia Programme Production", IMC, MANUU, Hyderabad, 27 February – 6 March 2017

One week of Induction Course/Programme "Training Program on Academic Leadership" organized by UGC HRDC, MANUU from 1<sup>st</sup> – 6<sup>th</sup> May 2017.

**Orientation Programme** at UGC-HRDC, MANUU, Hyderabad being organized from 18<sup>th</sup> July to 14<sup>th</sup> August, 2017.

Refresher Course on Experimental Physics at the Maharani Lakshmi Ammanni College for Women, Bangalore 23 Nov 2018 - 08 Dec 2018 organised by the Indian Academy of Sciences.

### CONFERENCES/TALKS ORGANISED

Convenor and Mentor for **Astronomy Nurture Camp 2015**, 2nd -14th December 2015, Maulana Azad National Urdu University (MANUU), Gachibowli Hyderabad with the Homi Bhabha Center for Science Education, TIFR, Mumbai.

Co-convenor for International Conference on Celestial Mechanics & Dynamical Astronomy December 15-17, 2015, Maulana Azad National Urdu University, Hyderabad, India

Coordinator for **Special lecture by Prof Pervez Hoodbhoy** titled "The rise and fall of Muslims in the field of Science", 7 January 2015, Maulana Azad National Urdu University, Hyderabad, India

Member of Organising Committee for a **Winter School on Astronomy and Workshop on Star Formation, "Astronomy at the Taj"**, 15-19 February, 2016, at Anand Engineering College Agra, in collaboration with the Department of Physics and Astronomy, University of Western Ontario, Canada.

Coordinator for Inaugural talk and implementation for Innovation Club by Prof Avinash Deshpande, Raman Research Institute, Bengaluru, India, 22 March 2016 on **Strategic Initiatives: Indian SWAN (Sky Watch Array Network)** at Maulana Azad National Urdu University, Hyderabad, India.

Member of Local Organising Committee and Scientific Organising Committee for a Winter School on Astronomy and Workshop on Star Clusters, "Astronomy in the Deccan", 20-23 February, 2017, at Birla Science Center, Hyderabad, in collaboration with the Department of Physics and Astronomy, University of Western Ontario, Canada.

Convenor, "Astronomy themed Experiments", 18-20 June, 2018, at IUCAA, Pune

Convenor for International Conference on Formation and Evolution of Star Clusters, 21-24 January, 2019, Maulana Azad National Urdu University, Hyderabad, India

Co-convenor

## ASTRONOMY OLYMPIADS

Invited regularly as a resource person for Training Teachers and Students and Paper Setting and Evaluation for the International Astronomy Olympiads at the Homi Bhabha Center for Science Education (HBCSE), TIFR, Mumbai. Also for Resource Generation Camps to set papers.

### ASSOCIATESHIP

**IUCAA** Associateship since July 2015

## THESIS EVALUATION:

M Tech Thesis submitted to the Andhra University via CSSTEAP Program.

### **EDITOR**

Editor of Journal of Advanced Research in Astrophysics and Astronomy, ADR Publications, Ghaziabad – 2010114, U.P. INDIA

#### REFEREE

Resonance, Academy of Sciences, India

#### PROJECT STUDENTS

Ola Ali, Research Assistant, Astronomy Dept., National Research Institute of Astronomy and Geophysics (NRIAG), Egypt, visited MANUU from 15th February, 2017 to 15th May, 2017 to learn data analysis techniques form Dr. Priya Hasan, Assistant Professor, Department of Physics, MANUU.

### MEMBERSHIP OF SOCIETIES/ASSOCIATIONS

Individual Member of the International Astronomical Union (IAU), August 2018

Full Member of The Organization for Women in Science for the Developing World (OWSD), TWAS, Trieste, Italy. (6821)

Life Member of the Astronomical Society of India (L2002)

Life Member of the Indian Science Congress Association (L29945)

Life Member of the Indian Physics Association (HYD/LM/13273))

Life Member of the Indian Association of Physics Teachers (IAPT) (L7959)

Member of the ASI-POEC (2016- date), Secretary(2019-) Astronomical Society of India-Public Outreach and Education Committee

## PREVIOUS EMPLOYMENT

Assistant Professor in Physics (2010-2015) at the Mufakkham Jah College of Engineering and Technology, Banjara Hills, Hyderabad

**Women Scientist** (November 20062009) Awarded a project by DST under the Women Scientist Scheme (SR/WOSA/PS26/2005) entitled "Photometric studies of star clusters using the 2MASS and observations" at Osmania University, Hyderabad.

**Postdoctoral fellow** (September 2004 – August 2006) in an IFCAR (IndoFrench Centre for Advanced Research) project entitled "The AGNSpheroid Connection" under

Prof Ajit Kembhavi, Dr A N Ramprakash IUCAA, Pune in collaboration with Prof S K Pandey, Pt. Ravishankar Shukla University, Raipur, Dr S N Hasan, Osmania University, Hyderabad and Prof B. Guiderdoni CRAL, Lyon, France and Prof. F. Hammer, Meudon, France.

Science Editor at Universities Press, Orient Longman, Hyderabad (19971998).

## PRESENT EMPLOYMENT

Assistant Professor in Physics at the Maulana Azad National Urdu University, Gachibowli, Hyderabad

### REFEREES

Prof Ajit Kembhavi (Mentor at postdoctoral level) Emeritus Professor, IUCAA Post Bag 4 Ganeshkhind Pune Email: akk@iucaa.ernet.in

Ph:09822979161

Prof Gopal Kilambi (Supervisor for PhD) Department of Astronomy Osmania University Hyderabad 500 007

Prof Vladimir Surdin(Supervisor for MSc Thesis) Sternberg Astronomy Institute **Moscow State University** Moscow, Russia Email: vsurdin@gmail.com