

**Dr. BONU AKKAYYA**



**Department:** Basic Sciences and Humanities

**College:** Gudlavalleru Engineering College

**Phone No:** -----

**Mobile:** 8186061969

**E-Mail:** venkat\_bonu@yahoo.com

**RESIDENTIAL ADDRESS:**

Dr. B.AKKAYYA,

D. No: 1- 605/1, Lakshmi Nilayam Appartments

Flat No: 16,

RTC Colony, Pamarru Road,

Gudivada - 521301

**ACADEMIC QUALIFICATIONS: M.Sc. Ph.D**

**ACADEMIC REWARDS / ACHIEVEMENTS:**

- ❖ Got Best paper award in International Conference on “Emerging Trends in, Technology Science and Upcoming Research in Computer Science” Organized by DAV Institute of Management, NH-III, NIT, Faridabad. on 25<sup>th</sup> April, 2015.

**PROFESSIONAL EXPERIENCE:**

Designation	Institution	Period
Asst. Professor	Gudlavalleru Engineering College, Gudlavalleru	18-08-2009 to Till date
Asst. Professor	Rajamahendri Institution	2008-2009

**PROJECTS GUIDED:**

PhD	Post Graduation	Under Graduation
NIL	NIL	NIL

**SPECIALIZATION:** Applied Mathematics

**RESEARCH PAPERS / BOOKS:** 8

**BOOKS PUBLISHED IN PUBLICATIONS:** 01

**PATENTS PUBLISHED:**02

**RECENT PUBLICATIONS/CONFERENCES:**

International/ National Journals	International / National Conferences
08	10

1. “Homotopy Analysis to heat transfer of MHD flow over a moving vertical porous plate with suction” in International Journal of Science, Technology & Management (IJSTM) Volume 4, Issue SI(01), (PP 212-221), April 2015, ISSN : 2394-1537.

2. "Homotopy Analysis to Soret and Dufour Effects on Heat and Mass Transfer of a Chemically Reacting Fluid past a Moving Vertical Plate with Viscous Dissipation" *IOSR Journal of Mathematics (IOSR-JM)*, Volume 11, Issue No.6, PP 106-121, e-ISSN:2278-5728, p-ISSN:2319-765X (Nov-Dec2015)
3. "Homotopy Analysis Method to Flow and Heat transform of Visco-Elastic Fluid over Exponentially Stretching Sheet in Porous Medium" *International Journal of Computational and Applied Mathematics*. ISSN 1819-4966 Volume 11, Number 2 (August, 2016), pp. 119-128.
4. Homotopy Analysis to Heat and Mass Transfer in a Visco-Elastic Fluid Flow over Exponentially Stretching Sheet through Porous Medium, *International Journal of Pharmacy & Technology*, December 2017, ISSN 0975- 766X, Vol. 9, PP 31108 – 31119.
5. Homotopy Analysis to Heat Transfer of Visco-Elastic Fluid Flow through Porous Medium over an Exponentially Stretching Sheet with non uniform heat source/sink, *Global Journal of Pure and Applied Mathematics*, September 2017; ISSN 0973-1768, Vol. 13, Number 9(2017), pp 6467 – 6481.
6. Analytical solution to heat and mass transfer of MHD Flow of Visco-Elastic Fluid over an exponentially stretching sheet through porous medium, *International Journal of Pharmacy & Technology*, June 2018, ISSN 0975- 766X, Vol. 10, PP31319 – 31334
7. A Homotopy Analysis Method to Flow and Heat Transfer Characteristics of a Visco-Elastic Fluid through Porous Medium over an Exponentially Stretching Sheet with Viscous Dissipation", *International Journal of Mathematics and Computer Applications Research*, Volume 8 Issue 5, ISSN (P) : 2249 – 6955, ISSN(E) : 2249- 8060, PP: 1-12, Oct 2018.
8. Numerical Study of Radiative Unsteady MHD Casson Fluid with Heat Transfer in a Liquid Film Over a Stretching surface, *Advances in Applied Computational Mechanics*. ISSN 2249-4278 Volume 10, Number 1 (2019), pp. 1-14, July 2019.

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#### **LIST OF PATENTS PUBLISHED: 02**

1. Dr.B.Akkayya et. Al published a patent title" A system for calculating binomial Mathematical expression and method thereof", on 22/04/2022.
2. Dr.B.Akkayya et al,published a patent title" Down-Hole Fluid Flow Control System And Method Having Dynamic Response To Local Well Conditions International classification",on 15/07/2022.

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1. Homotopy Analysis to MHD Flow Past a Stretching Sheet in Porous Medium" in National conference on "1<sup>st</sup> A.P. Science Congress" held in the Dept. Of Physics, S.V.University, Tirupati on 27<sup>th</sup> January to 29<sup>th</sup> January, 2016.
2. Homotopy Analysis to MHD Flow of Walter's Liquid B over an exponentially Stretching Sheet" in International conference on "60<sup>th</sup> Congress of Indian Society of Theoretical and Applied Mechanics"(ISTAM-2015)" held in the Dept. Of Mechanical, Malaviya National Institute of Technology, Jaipur, Rajasthan, India from 16<sup>th</sup> December to 19<sup>th</sup> December, 2015.
3. "Homotopy Analysis to heat transfer of MHD flow over a moving vertical porous plate with suction" in International conference on "Emerging Trends in, Technology Science and Upcoming Research in Computer Science" Organized by DAV Institute of Management, NH-III, NIT, Faridabad. on 25<sup>th</sup> April, 2015.

4. “Numerical Solution to heat transfer in MHD Visco-Elastic fluids” in National conference on “XXIII congress conference of APSMS” held at Vignan University, Guntur, from 12<sup>th</sup> to 14<sup>th</sup> December, 2014.
5. “Homotopy Analysis method to MHD Heat Transfer flow over Exponentially stretching sheet Embedded in a Thermally Stratified Medium” in International conference of 61<sup>st</sup> Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM – 2016), VIT University, Vellore, Tamil Nadu, 11-14 December, 2016.
6. “Homotopy Analysis method to Visco elastic fluid flow over an Exponential stretching sheet through porous Medium” in International conference of International Academy of Physical Sciences on Recent Advances in Physical Sciences and Future Challenges, Osmania University, Hyderabad 14-16 July, 2017.
7. Homotopy Analysis method to Heat transfer in Visco elastic fluid flow through porous medium over Exponential stretching sheet with radiation National conference on “3<sup>rd</sup> A.P. Science Congress” held in the Dept. Of Mathematics, Andhra University, 21-22 November, 2017.
8. Homotopy Analysis method to Effects of Buoyancy and Heat transfer of Visco elastic fluid flow over an Exponential stretching sheet in National seminar on Theoretical & Applications of Mathematical Sciences, Adikavi Nannaya University, Rajamundry 21-22 December, 2017.
9. Heat transfer in MHD visco-elastic Nanofluid flow over an exponentially stretching sheet on “ International conference on Recent Inventions and Innovations in Mathematical sciences organized by Department of Applied mathematics, Andhra University, 28<sup>th</sup> March to 1<sup>st</sup> April 2019.
10. Hydromagnetic Flow and Mass Transfer of a Viscoelastic Fluid over an Exponentially Stretching Surface through Porous Media : An analytical Approach, National conference on mathematics, statistics & applications, organized by division of mathematics, Vignan’s Foundation for Science, Technology & Research, Guntur during 19-20 July 2019.

#### **LIST OF WORKSHOPS ORGANIZED: 01**

One Day Workshop on “Fuzzy Mathematics in Engineering Control : An Example Oriented Treatise” Conducted by Gudlavalleru Engineering College, Gudlavalleru on 21st February, 2016.

#### **LIST OF BOOKS PUBLISHED: 01**

1. Dr.B.Akkayya et.al, published a book title” Applications of statistics in computer science”,on January, 2023 with ISBN 978-93-5625-584-5.

#### **LIST OF WORKSHOPS /SEMINARS ATTENDED: 17**

1. Attended one week Faculty Development Program on “MATLAB APPLICATIONS IN MECHANICAL ENGINEERING” organized by department of Mechanical Engineering, Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru – 521356, during 07<sup>th</sup> – 11<sup>th</sup> September 2015.
2. Attended One Day workshop on “Optimization Techniques and Its Applications” on 13<sup>th</sup> September, 2014 organized by Dept. of BS&H, Gudlavalleru Engg. College, Gudlavalleru.
3. Attended Two – Week ISTE workshop on “Fluid Mechanics” from 20<sup>th</sup> to 30<sup>th</sup> May 2014 organized by IIT, Kharagpur at Gudlavalleru Engineering College, Gudlavalleru as Remote centre. This workshop was held under the National Mission on Education through ICT (MHRD)

4. Attended Two Day workshop on “Recent Trends in Fluid Mechanics and Numerical Techniques” from 19<sup>th</sup> to 20<sup>th</sup> January 2014 organized by Dept. of BS&H, Sri Vasavi Institute of Engg. & Technology, Nandamuru, Pedana.
5. Attended Two – Week ISTE workshop on “Signals & Systems” from 2<sup>nd</sup> to 12<sup>th</sup> January 2014 organized by IIT, Kharagpur at Gudlavalleru Engineering College, Gudlavalleru as Remote centre. This workshop was held under the National Mission on Education through ICT (MHRD).
6. Participated Tequip Sponsored National Seminar on Applications of ordinary and partial differential equations Organized by Sri Vasavi Engineering College, Ibrahim Bagh, Hyderabad, 28<sup>th</sup> December 2013.
7. Attended State Level Two Day Workshop on “Applications of Mathematics in Engineering” (As per JNTUK R13 - Syllabi) from 09<sup>th</sup> & 10<sup>th</sup> November 2013 Organized

- by Gudlavalleru Engineering College, Gudlavalleru.
8. Attended One Week workshop on “Training Teachers for Excellence” from 29<sup>th</sup> April to 4<sup>th</sup> May 2013 organized by Dr. B.G.Barki, Former Director, NITTTTR, Chennai, Gudlavalleru Engg. College, Gudlavalleru.
  9. Attended two day complimentary Training/Orientation on “ Matlab, Simulink & Related Tool boxes for Engineering Education” 3<sup>rd</sup> and 4<sup>th</sup> April, 2013 organized by Department of EEE, Gudlavalleru Engineering college, Gudlavalleru.
  10. Attended National Conference on “Mathematical and Computational Sciences” from 6<sup>th</sup> to 7<sup>th</sup> July 2012 organized by Dept. of Mathematics, Adikavi Nannayya University, Rajahmundry.
  11. Attended One Day workshop on “Mathematical Logic and Applications” on 3<sup>rd</sup> April, 2010 organized by Dept. of Mathematics, V.R.Sidhartha Engineering college .
  12. One Day Workshop on “Fuzzy Mathematics in Engineering Control : An Example Oriented Treatise” Conducted by Gudlavalleru Engineering College, Gudlavalleru on 21st February, 2016
  13. Two day workshop on “Multivariate Analysis using R-Software” Conducted by Gudlavalleru Engineering College, Gudlavalleru on 12<sup>th</sup> & 13<sup>th</sup> November, 2016.
  14. “A Five - Day workshop on R-Programming for Statistical Computations”, Part-I, organized by dept. of BS&H, Gudlavalleru Engineering College, Gudlavalleru, 24 – 25 June 2017.
  15. Four day workshop on “Numerical Methods with Matlab” (Theory & Hands on Experience) organized by BS&H dept., Gudlavalleru Engineering College, Gudlavalleru, from 25–28 June 2018.
  16. One week Faculty Development Programme on “Applied Research on Renewable Energy Sources and Microgrids” held during 18<sup>th</sup> – 23<sup>rd</sup> November 2019 organized by the department of Electrical and Electronics Engineering, Gudlavalleru Engineering College, Gudlavalleru.
  17. One day Faculty development Programme on “ DESIGN AND ANALYSIS OF EXPERIMENTS” held on 30<sup>th</sup> August, 2019, organized by Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru.

#### **LIST OF WORKSHOPS /SEMINARS ATTENDED THROUGH ONLINE: 07**

1. One day national webinar on “ Fluid Dynamics” on 23<sup>rd</sup> June, 2020, organized by Department of Mathematics & Statistics, School of Basic sciences, Mani pal University, Jaipur.
2. One day national webinar on “**Fascinating World Of Mathematics And Its Applications To Blood Flows**” on 27<sup>th</sup> June, 2020, organized by Department of Mathematics, Sidhradha college of arts& science, Vijayawada.
3. Online Faculty Development Programme on “NBA” held during 12<sup>th</sup> May, 2020, organized by Bharati Vidyapeeth College Of Engineering, Navi Mumbai.
4. One week National level short time training program on “Matlab for all” held during 4<sup>th</sup> – 8<sup>th</sup> June, 2020 organized by the department of Electrical and Electronics Engineering, Visweswarayya institute of Technology, Bangalore.
5. One day national webinar on “**Impact of COVID in Engineering Education & Way forward** ” on 9<sup>th</sup> June, 2020, organized by Indian Society for Technical Education Chapter, Gudlavalleru Engineering College, Gudlavalleru.

6. One day national webinar on “ A Systematic Statistical approach for optimal solutions for Industries” on 5<sup>th</sup> June, 2020, organized by Department of Mathematics, KL University, Vijayawada.
7. Online one week Faculty Development Programme on “Mathematical and Statistical modelling” held during 26<sup>th</sup> – 30<sup>th</sup> May 2020 organized by the department of Basic sciences and humanities, Godavari institute of engineering and technology, Rajamahendravaram.

**CERTIFICATIONS:** NIL

**INDUSTRIAL TRAINING:** NIL

**GUEST LECTURES DELIVERED:** NIL

**MEMBERSHIP IN PROFESSIONAL BODIES:** APSMS & ISTAM

**CONSULTANCY ACTIVITIES:** NIL

**GRANTS FETCHED:** NIL