

RKGIT DARPAN

E-NEWSLETTER OF APPLIED SCIENCES & HUMANITIES



OUR TEAM

OURTEAM

Chief Patrons Sh.Dinesh Kumar Goel Sh.Akshat Goel

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<mark>E d i t o r</mark> Dr. Neena Sharma

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ANATOMY OF BLACK HOLES: Star-sized and supermassive

Photon sphere

tellar-mass black black grant torner, supermassive and photons — which normally travel straight path — get stuck in circular critist. They culture the share of a black hole. Astronomers are hoping to synthesize a telescope big enough to detect this ring around the Milly Way's supermassive black hole and see the "shadew"

Relativistic jets

toth uppermassive and stellar mass black holes channel ncoming material into near light speed jets emanuting rom their poles. These jets smit radio waves and X-rays and can extend hundreds of thousands of light years (in he supermassive case) into space. Astronomers are still working to understaad how these jets function.

Event horizon

The distance from the black hole's cent to the edge of the event hortzon is call the Schwarzschild radius, and this hort marks the "black" part of the black hole for a sugremative black hole, the radii is solar system sized. If you crossed the work hortzon, you wouldn't lower it for while baccase the average density into the splayers in sindlar is that of vater, a you would not be unconfertably, stretight aways for a sindlar man black hol the radius is just tens of radies. If you a proached this boundary from first, you "spaghettified" — polied into a long, th

Innermost circular stable orbit oth supermassive and stellar mass holes, this is the larver edge of the

accretion disk — the last place where material can orbit safely without the risk of falling is past the event horizon

Accretion disk

Singularity The "point" at which all of the matter as energy that fall into the black hole end up. Here, the curvature of space-time is infinite. Theoretically, this point takes to no space but has anywhere from a few billions of times the Sun's mass, giving an action due to the Sun's mass, giving

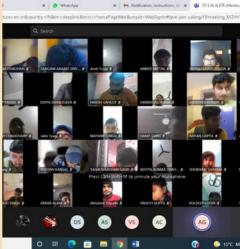
Webinar

The International Webinar was organized by the Department of Applied Sciences & Humanities on 21 january 2022, on the topic "Einstein's Warped Universe: A Black Hole is not a hole.

The speaker of the day for the topic was Prof. Robert Boyd, The Institute of Optics Hajim School of Engineering & the Applied Sciences University of Rochester, U.S.A., Department of Physics, University of Ottawa, Canada . Black holes are regions of spacetime where gravity's pull is so strong that nothing, not even light, can escape from being dragged in and "eaten." Einstein's theory of general relativity predicted the existence of black holes and that, no matter what such an object "eats," black holes are characterized only by their spin and electrical charge. mass, Astrophysicists refer to this as the "no-hair" theorem.



Raj Kumar Goel Institute of Technology, Ghaziabad, U. P., India



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NATIONAL SCIENCE DAY

National Science Day Celebration

28th February, 2022 Time:2:30 PM

Invited Talk: Capturing Images through the Ages "Glimpses of the Journey from Galileo's Telescope to Mobile Cameras"



To commemorate the discovery of Raman Effect by Nobel laureate, physicist Sir CV Raman on February 28th in 1928 ,the department celebrated National_Science_Day on this day..

On the occasion of National Science Day February 28th, 2022 The Department of Applied Sciences and Humanities, Rkgit Ghaziabad organized an Invited Talk: Capturing Images through the Ages "Glimpses of the Journey from Galileo's Telescope to Mobile Cameras" by Professor Anurag Sharma, FNASc, FNA, FNAE, Emeritus Professor and JC Bose Fellow Optics and Photonics Center and Physics Department, Indian Institute of Technology Delhi, India on Monday 28 February, 2022. He said that Photographs play an important role in everyone's life – they connect us to our past, they remind us of people, places, feelings, and stories.method of recording the image of an object through the action of light, or related radiation, on a light-sensitive material. The programme was coordinated by Dr Poonam C Kumar, Dr Sanjeev Goel, Dr Shalini Gupta, Dr Mamta Goel and Dr Vikas Katoch.



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EARTH DAY CELEBRATION



RKGIT firmly believes in conserving the environment and protecting Mother Earth. Inculcating these values,Department of Applied Sciences & Humanities celebrated Earth Day, on 22nd April, 2022. The theme was Invest in Our Planet. Students participated in poster presentation with great enthusiasm. The aim of the poster making competition was to pay tribute to the mother Earth and sensitize students about climate change and global warming.During the presentation, students showcased their skills and demonstrated the present-day scenario besides suggesting steps to preserve nature."Shri H G Garg , Dean Student Welfare appreciated the efforts of the students. He also encouraged them to continue taking steps towards saving the planet.





FACULTY DEVELOPMENT PROGRAMME

Dr Neena Sharma participated in the One Week Online Faculty Development Programme FDP) on "Emerging and Innovative Approach in Management, IT and Communication in Teaching and Research" from 09 June to 15 June, 2022 organized by IIMT COLLEGE OF MANAGEMENT IN COLLABORATION WITH INDIAN ECONOMIC ASSOCIATION.

Dr Neena Sharma participated in Eight Days Faculty Training Program on Digital Skills For Educators organised from 1st May-2022 to 8th May-2022 in association with Council for Teacher Education Foundation, Delhi-NCR Chapter.

RESEARCH PUBLICATION

Dr Neena Sharma published a research paper on ICT as a change agent for growth in higher education International Journal of Advances in Engineering and Management (IJAEM)Volume 4, issue 1, Jan 2022 pp: 1051-1056 ISSN: 2395-5252

Dr Ritu Sharma published a paper entitled "Vajpayee's Vision of Humanity and Value System" Journal International Research Journal of Science Engineering and Technology, Volume 12, Issue 2, Month April, ISSN number 2454-3195

Dr Anupam Sharma published a research paper on ICT as a change agent for growth in higher education International Journal of Advances in Engineering and Management (IJAEM)Volume 4, issue 1, Jan 2022 pp: 1051-1056 ISSN: 2395-5252

ONLINE CERTIFICATION

Ms. Vinita Sharma successfully completed" Online education: The foundations of online teaching "an online noncredit course authorized by Macquarie University and Offered through Coursera in Jan.2022.



WEBINAR

Dr Sanjeev Goyal participated in the webinars on "Einstein's Warped Universe: A Black Hole is Not a Hole" by Professor Nils Andersson, University of Southampton, U. K. organized by the Department of Applied Sciences and Humanities at Raj Kumar Goel Institute of Technology, Ghaziabad on 21st January 2022..

Dr Sanjeev Goyal attended International Webinar on "1 & 2D Nanostructures Suspensions: Synthesis, Exfoliation, Structures and Applications"by Prof. Jean Christophe P. Gabriel from France on 15th February 2022.

Ms.Vinita Sharma participated and successfully completed the online webinar on "Simple ways to improve students 'classroom performance and experience" jointly organized by the Centre for Advanced Studies & Research in Automotive Engineering, DTU; IMechE DTU; NIT Srinagar; Society for Fusion of Science and Technology; on April 11, 2022.

Ms.Vinita Sharma participated and successfully completed the online webinar on "1 and 2D Nanostructures Suspensions: Synthesis, Exfoliation, Structures and Applications" by Prof. Jean-Christophe P. Gabriel, Director Research (Nanosciences), CEA Saclay, France at Raj Kumar Goel Institute of Technology, Ghaziabad, on Feb 15, 2022



STUDENT CORNER

भगवान ने तुझे बनाया है

उस भगवान ने तुझे बनाया है, तू खुद ही तलवार उठा, तोड़ जंजीर जमाने की, तू खुद का इत्तिहास रचा,

तेरा नया सवेरा तू ले आ, इस सपने से दुनिया को जगा, तोड़ दे ख्वाबो की जंजीर, कुछ कर जा, बन कर तू वीर| जीव जब पवित्र तू, तो क्यों है ये दशा तेरी? जो देव का ही अंश तू, तो क्या परीक्षा तेरी?

उस भगवान ने तुझे बनाया है, तू खुद ही तलवार उठा, तोड़ जंजीर जमाने की, तू खुद का इत्तिहास रचा, बदलती दुनिया को आने दे, इस इन्द्रधनुष को छाने दे, देर ज़रूर सेवर अभी, पर मंज़िल अभी भागी नहीं । रुकने की अब बारी नहीं, आस कभी त्यागी नहीं । जीत की तेरी पहली परछाई, नवीन सूरज ने आस दिखलाई|

उस भगवान ने तुझे बनाया है, तू खुद ही तलवार उठा, तोड़ जंजीर जमाने की, तू खुद का इत्तिहास रचा |



Name- Krishnakant A Tiwari Section-C



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