

	Department of Mathematics Faculty of Physical Sciences, IGU Meerpur
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1. Research Projects

SNo .	PI/Co-PI	Title of the Project	Funding Agency	Duration	Year of Award	Amount in INR	Status
1.	Suresh Kumar	Remedy of the Hubble constant tension in some physically realistic models in general relativity and modified theories of gravity	SERB-DST	3 Years	2022	20.91 Lakh	Ongoing

2. Patents

Application No.	Title	Applicant(s) / Inventor(s)	Filing date	Application status	Published/ Granted	Validity
2021103990	A Novel Stochastic Model for Reliability Evaluation of Computing Machines Subject to Arrival Time of Service Facility Upon Failure	M.S.Barak & others	09.07.2021	Granted	Granted/ 25.08.2021	08.07.2029 Link
202111044508	Smart System and Method for Inventory Tracking and Management Using AI	Rajender Kumar and Shelly	01.10.2021	Published	Published/ 15.10.2021	Link

3. Books/Book Chapters

Sl. No.	Name of the teacher	Title of the book published	Title of the chapters published	Year of publication	ISBN number	Name of the publisher

4. MoUs

Year of signing MoU	Name of the organization with whom MOU/Collaboration being signed	Duration	Purpose of MOU/Collaboration	List the actual activities under each MOU year-wise	Date of the activity conducted	
March 27, 2018	Shiksha Sanskriti Uthan Nyas, New Delhi	2018-19, 2019-20	To initiate the ancient study of Vedic Mathematics			Link

5. Research Papers

S. No.	Title of Paper	Author(s)	Journal, Volume, Page (Year)	ISSN Number(s)	Journal WebLink	Abstract Link	SCI/SCOPUS/UGC Care
	2024						
	Effects of type Ia Supernovae absolute magnitude priors on the Hubble constant value	Y. Chen, S. Kumar, B. Ratra, T. Xu	The Astrophysical Journal Letters 964, L4 (2024)	2041-8213 (online)	Link	Link	SCI SCOPUS pdf
	Observational bounds on extended minimal theories of massive gravity: New limits on the graviton mass	A.De Felice, S. Kumar, S. Mukhoyama, R.C. Nunes	Journal of Cosmology and Astroparticle Physics 04, 013 (2024)	1475-7516 (online)	Link	Link	SCI SCOPUS pdf

	Response of Moisture and Temperature Diffusivity on an Orthotropic Hygro-thermo-piezo-elastic Medium	V.Gupta, MS Barak, H. Ahmad, S. Das, B. Almohsen	Journal of Nonlinear Mathematical Physics, 31, 1-26 (2024)	1776-0852	Link	Link	SCI Link
	Size-dependent effect on the interaction of surface waves in micropolar thermoelastic medium with dual pore connectivity	S. Das, R. Dutta, E.M Craciun, A. Sur, MS Barak, V. Gupta	Physica Scripta, 99, 065232 (2024)	0031-8949	Link	Link	SCI PDF
	Nonlocal and dual-phase-lag effects in a transversely isotropic exponentially graded thermoelastic medium with voids	MS Barak, R. Poonia, S. Devi, P. Dhankhar	ZAMM, 104, e202300579 (2024)	1521-4001	Link	Link	SCI PDF
	Nonlocal and micropolar effects in a transversely isotropic functionally graded thermoelastic solid under an inclined load	P Dhankhar, MS Barak, R Poonia	Mechanics of Time-Dependent Materials, (2024)	1573-2738	Link	Link	SCI PDF
	Response of stiffness and viscosity on the energy ratios at piezo-visco-thermo-elastic medium	S Kumar, N Kumari, V Gupta, MS Barak	International Journal of Applied Mechanics and Engineering	2353-9003	Link	Link	SCOPUS PDF
	The effect of viscosity and hyperbolic two-temperature on energy ratios in elastic and piezovisco thermoelastic half-spaces	S Kumar, MS Barak, N Kumari, V Gupta, H Ahmad	Mechanics of Time-Dependent Materials	1573-2738	Link	Link	SCI PDF
	Reflection of quasi plasma wave in photo-piezo semiconductor medium with distinct higher order fractional derivative two temperature models	V Gupta, MS Barak, H Ahmad	Physica Scripta, 99, 025515 (2024)	0031-8949	Link	Link	SCI PDF
	2023						
	Common Fixed Point Theorems for Three Transformations on a Vector Valued S-metric Spaces	Pooja Yadav, Mamta Kamra	Educational Studies in Mathematics, Vol. 113, 1-16(2023)	0013-1954 (online)	Link	Link	SCI Scopus Pdf

	New late-time constraints on $f(R)$ gravity	S. Kumar , R.C. Nunes, S. Pan, P. Yadav	Physics of the Dark Universe, 42, 101281 (2023)	2212-6864(online)	Link	Link	SCI SCOPUS pdf
	Relaxing cosmological tensions with a sign switching cosmological constant: Improved results with Planck, BAO, and Pantheon data	O. Akarsu, S. Kumar , E. Ozulker, J.A. Vazquez, A. Yadav	Physical Review D, 108, 023513 (2023)	2470-0010 (print) 2470-0029 (online)	Link	Link	SCI SCOPUS pdf
	Exploring the H_0 tension and the evidence of dark sector interaction from 2D BAO measurements	A. Bernui, E. Di Valentino, W. Giarè, S. Kumar , R.C. Nunes	Physical Review D, 107, 103531 (2023)	2470-0010 (print) 2470-0029 (online)	Link	Link	SCI SCOPUS pdf
	New cosmological constraints on $f(T)$ gravity in light of full Planck-CMB and type Ia supernovae data	S. Kumar , R.C. Nunes, P. Yadav	Physical Review D, 107, 063529 (2023)	2470-0010 (print) 2470-0029 (online)	Link	Link	SCI SCOPUS pdf
	Testing spatial curvature and anisotropic expansion on top of the Λ CDM model	O. Akarsu, E. Di Valentino, S. Kumar , M. Ozyigit, S. Sharma	Physics of the Dark Universe, 39, 101162 (2023)	2212-6864(online)	Link	Link	SCI SCOPUS pdf
	Behavior of higher-order MDD on energy ratios at the interface of thermoelastic and piezothermoelastic mediums	M. S. Barak , H. Ahmad, R. Kumar, V. Gupta, F. A. Awwad and E. A. A. Ismail	Scientific Reports, 13, 17170 (2023)	2045-2322	Link	Link	SCI PDF
	Photo-thermo-piezo-elastic waves in semiconductor medium subject to distinct two temperature models with higher order memory dependencies	V. Gupta and M. S. Barak	International Journal of Numerical Methods for Heat & Fluid Flow (2023)	0961-5539	Link	Link	SCI PDF
	Analysis of Waves at Boundary Surfaces at Distinct Media with Nonlocal Dual-Phase-Lag	R.Kumar, V. Gupta, V. Pathania, R. Kumar, and M. S. Barak	Proceedings of the National Academy of Sciences, India Section A: Physical Sciences (2023)	2250-1762	Link	Link	SCI PDF
	Energy Ratio Response at the Interface of Elastic and Dual-Porous Thermoelastic Half-Spaces	R. Kumar, V. Gupta, V. Pathania, and M. S. Barak	Physica Scripta (2023)	0031-8949	Link	Link	SCI PDF
	Energy transfer at the interface of monoclinic piezothermoelastic and thermoelastic half spaces with MDD	M. S. Barak , R. Kumar, R. Kumar, and V. Gupta	Journal of Thermal Stresses, (2023)	1521-074X	Link	Link	SCI PDF
	Reflection at the free surface of the Orthotropic piezo-hygro-thermo-elastic	A. K. Yadav, M. S. Barak ,	International Journal of Numerical Methods	0961-5539	Link	Link	SCI

	medium	and V. Gupta	for Heat & Fluid Flow, 33, 3535 (2023)				PDF
	Energy analysis at the interface of piezo/thermoelastic half spaces	V. Gupta, R. Kumar, R. Kumar and M. S. Barak	International Journal of Numerical Methods for Heat & Fluid Flow, 33 (2023)	0961-5539	Link	Link	SCI PDF
	Memory-dependent and fractional order analysis of the initially stressed piezo-thermoelastic medium	M. S. Barak and V. Gupta	Mechanics of Advanced Materials and Structures	1537-6532(Online)	Link	Link	SCI PDF
	Quasi-P wave through orthotropic piezo-thermoelastic materials subject to higher order fractional and memory-dependent derivatives	V. Gupta and M.S. Barak	Mechanics of Advanced Materials and Structures	1537-6532(Online)	Link	Link	SCI PDF
	Double porous thermoelastic waves in a homogeneous, isotropic solid with inviscid liquid	V. Pathania, R. Kumar, V. Gupta, and M. S. Barak	Archive of Applied Mechanics, 93, 1943 (2023)	1432-0681	Link	Link	SCI PDF
	The effect of memory and stiffness on energy ratios at the interface of distinct media	M. S. Barak , R. Kumar, R. Kumar, and V. Gupta	Multidiscipline Modeling in Materials and Structures, 19, 464 (2023)	1573-6113	Link	Link	SCI PDF
	Energy analysis at the boundary interface of elastic and piezothermoelastic half-spaces	M. S. Barak , R. Kumar, R. Kumar, and V. Gupta	Indian Journal of Physics, 97, 2369 (2023)	0974-9845	Link	Link	SCI PDF
	Reflection/transmission of plane waves at the interface of an ideal fluid and nonlocal Piezothermoelastic medium	V. Gupta, R. Kumar, M. Kumar, V. Pathania, and M. S. Barak	International Journal of Numerical Methods for Heat & Fluid Flow, 33, 912 (2023)	0961-5539	Link	Link	SCI PDF
	Thermoelastic Modeling with Dual Porosity Interacting with an Inviscid Liquid	R. Kumar, V. Pathania, V. Gupta, M. S. Barak , and H. Ahmad	Journal of Applied and Computational Mechanics, (2023)	2383-4536	Link	Link	SCOPUS PDF
	Performance of computer system with three types of failure using weibull distribution subject to hardware repair and software	A. Kumar, R. Garg, and M. S. Barak	International Journal of Systems Assurance Engineering and Management 14, 483 (2023)	0976-4348	Link	Link	SCOPUS PDF

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36.	Common fixed point results for three and four mappings on vector-b-metric space with a graph	R. Hooda, M.Kamra , and A. Malik	Rendiconti del Circolo Matematico di Palermo Series 2, 72, 2721 (2023)	1973-4409(Online)	Link	Link	Scopus
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	Some Fixed Point Results on a Vector Valued S -Metric Space	Pooja Yadav, Mamta Kamra	J. of Tianjin University Science and Technology, Vol.55(2022)	0493-2137 (online)	Link	Link	SCOPUS pdf
	Common Fixed Point Theorems for Self Mappings on a complete Vector S-metric Space	Pooja Yadav, Mamta Kamra , Rajpal	Specialusis Ugdymas 1 (43), (2022)	2424 -3299 (online)	Link	Link	SCOPUS pdf
	Some fixed point theorems for self mappings on vector valued rectangular metric spaces	Krishan Kumar, Mamta Kamra , Rajpal	Specialusis Ugdymas 1(43),(2022)	1392-5369 (online)	Link	Link	SCOPUS pdf
	Common fixed point results for three and four mappings on vector-b- metric space with a Graph	Rahul Hooda, Mamta kamra , Archana Malik	Rendiconti Del Circolo Matematico di Palermo Series 2(Springer) ,(2022)	0009-725X/1973-4409	Link	Link	SCI pdf
	Updating non-standard neutrinos properties with Planck-CMB data and full-shape analysis of BOSS and eBOSS galaxies	S. Kumar , R.C. Nunes, P. Yadav	Journal of Cosmology and Astroparticle Physics, 09, 060 (2022)	1475-7516(online)	Link	Link	SCI SCOPUS pdf
	New tests of dark sector interactions from the full-shape galaxy power spectrum	R.C. Nunes, S. Vagnozzi, S. Kumar , E.D. Valentino, O. Mena	Physical Review D, 105, 123506 (2022)	2470-0010 (print) 2470-0029 (online)	Link	Link	SCI SCOPUS pdf
	Reconstruction of the dark sectors' interaction: A model-independent inference and forecast from GW standard sirens	A. Bonilla, S. Kumar , R.C. Nunes, S. Pan	Monthly Notices of the Royal Astronomical Society, 512, 4231 (2022)	0035-8711(print) 1365-2966(online)	Link	Link	SCI SCOPUS pdf
	Cosmology intertwined: A review of the particle physics, astrophysics, and cosmology associated with the cosmological tensions and anomalies	E. Abdalla et. al., S. Kumar	Journal of High Energy Astrophysics, 34, 49 (2022)	2214-4048(print) 2214-4056(online)	Link	Link	SCI SCOPUS pdf
	Fractional and MDD analysis of piezo-photo-thermo-elastic waves in semiconductor medium	V. Gupta and M. S. Barak	Mechanics of Advanced Materials and Structures, 105, 123506 (2022)	1537-6494	Link	Link	SCI pdf
	Quasi-P wave through orthotropic piezo-thermoelastic materials subject to higher order fractional and memory-dependent derivatives	V. Gupta and M. S. Barak	Mechanics of Advanced Materials and Structures, (2022)	1537-6494	Link	Link	SCI pdf

	Memory-dependent and fractional order analysis of the initially stressed piezo-thermoelastic medium	M. S. Barak and V. Gupta	Mechanics of Advanced Materials and Structures, (2022)	1537-6494	Link	Link	SCI pdf
	Generalized plane waves in a rotating thermoelastic double porous solid	V. Pathania, R. Kumar, V. Gupta, and M. S. Barak	International Journal of Applied Mechanics and Engineering, 27, 138 (2022)	1734-4492	Link	Link	SCOPUS pdf
	Thermo-mechanical interactions in a rotating nonlocal functionally graded transversely isotropic elastic half-space	M. S. Barak and P. Dhankhar	(ZAAM) Journal of Applied Mathematics and Mechanics 103, e202200319 (2022)	1521-4001	Link	Link	SCI pdf
	Effect of inclined load on a functionally graded fiber-reinforced thermoelastic medium with temperature-dependent properties	M. S. Barak and P. Dhankhar	Acta Mechanica 233, 3645 (2022)	1619-6937	Link	Link	SCI pdf
	Horizontal and vertical motion at the surface of partially saturated soils layer sandwiched between water and elastic solid	M. Kumari, A. Singh, M. S. Barak , and M. Kumar	Waves in Random and Complex Media (2022)	1745-5049	Link	Link	SCOPUS pdf
	A Deterministic Inventory Model with Biquadratic Demand, Variable Deterioration Rate and Carrying Cost	P.Soni, R. Kumar	Turkish Online Journal of Qualitative Inquiry (TOJQI), Volume 13, Issue 1, January 2022: 1530-1538	1309-6591	Link	Link	SCOPUS pdf
	A Deterministic Inventory Model with Biquadratic Demand, Static rate of Deterioration and Linear Carrying cost	P.Soni, R. Kumar	International Journal of Science and Research (IJSR), Volume 11 Issue 4, April 2022	2319-7064	Link	Link	Peer-Reviewed pdf
	An Inventory Model having Polynomial Demand with Time Dependent Deterioration and Holding Cost	Shelly, R. Kumar	International Journal of Innovative Science and Research Technology,	2456-2165	Link	Link	Peer-Reviewed pdf

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	An Inventory Model having Polynomial Demand with Time Dependent Holding	Shelly, R. Kumar	Turkish Online Journal of Qualitative Inquiry (TOJQI), Volume 13, Issue 1, January 2022: 1494-1501	1309-6591	Link	Link	SCOPUS pdf
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	Fixed points of Chatterjea mappings and Kannan mappings on Vector-b -metric Spaces with Graph	Rahul Hooda, Mamta Kamra , Archana Malik	Journal of Interdisciplinary Mathematics, Taru Publications, Vol. 24, no. 6, (2021)	0972-0502 (Print) 2169–012X(online)	Link	Link	SCOPUS pdf
	Fixed Points for the G-Contraction on E-b -Metric Spaces with a Graph	Rahul Hooda, Mamta Kamra , Archana Malik	Communications in Mathematics and Applications, Vol.12, No.4,(2021)	0975-8607(online) 0976 – 5905 (Print)	Link	Link	SCI pdf
	Relaxing cosmological tensions with a sign switching cosmological constant	O. Akarsu, S. Kumar , E. Ozulker, A.J. Vazquez	Physical Review D, 104, 123512 (2021)	2470-0010 (print) 2470-0029 (online)	Link	Link	SCI SCOPUS pdf
	Minimal theory of massive gravity in the light of CMB data and the S8 tension	J.C.N. De Araujo, A. De Felice, S. Kumar , R.C. Nunes	Physical Review D, 104, 104057 (2021)	2470-0010 (print) 2470-0029 (online)	Link	Link	SCI SCOPUS pdf
	Remedy of some cosmological tensions via effective phantom-like behavior of interacting vacuum energy	S. Kumar	Physics of the Dark Universe, 33, 100862 (2021)	2212-6864(online)	Link	Link	SCI SCOPUS pdf
	Reliability measures of a cold standby system subject to refreshment	A. Kumar, R. Garg, and M. S. Barak	International Journal of Systems Assurance Engineering and Management 14, 147 (2021)	0976-4348	Link	Link	SCOPUS pdf
	Effect of various physical properties on the reflection coefficients of inhomogeneous waves at the stress-free surface of partially saturated soils induced by obliquely incident fast P-wave	M. Kumari, M. S. Barak , A. Singh, and M. Kumar	Journal of Ocean Engineering and Science 7, 225 (2021)	2468-0133	Link	Link	SCI pdf
	A Deterministic Inventory Model with Demand as a Biquadratic Polynomial Function of Time with Variable rates of Deterioration	P.Soni, R. Kumar	Turkish Online Journal of Qualitative Inquiry (TOJQI), Volume 12, Issue 9, August 2021: 5692-5697	1309-6591	Link	Link	SCOPUS pdf

	A Deterministic Inventory Model with Demand as a Biquadratic Polynomial Function of Time for Items with Static rate of Deterioration	P.Soni, R. Kumar	International Journal of Science and Research (IJSR), Volume 10 Issue 9, September 2021	2319-7064	Link	Link	Peer-Reviewed pdf
	A Deterministic Inventory Model with Demand as a Function of Time for Items with a Static rate of Deterioration	P.Soni, R. Kumar	International Journal of Science and Research (IJSR), Volume 10 Issue 10, October 2021	2319-7064	Link	Link	Peer-Reviewed pdf
	Inventory Model with Demand as a Polynomial Function of Time and Constant Deterioration	Shelly, R. Kumar	International Journal of Innovative Science and Research Technology, Volume 6, Issue 9, September 2021	2456-2165	Link	Link	Peer-Reviewed pdf
	Inventory Model with General Demand and Deterioration	Shelly, R. Kumar	Turkish Online Journal of Qualitative Inquiry (TOJQI), Volume 12, Issue 9, August 2021: 5970-5975	1309-6591	Link	Link	SCOPUS
	Inventory Model with Demand as a Polynomial Function of Time and Time Dependent Deterioration	Shelly, R. Kumar	International Journal of Science and Research (IJSR), Volume 10 Issue 9, September 2021	2319-7064	Link	Link	Peer-Reviewed pdf
	Machine Learning-based Optimization Scheme for Detection of Spam and Malware Propagation on Twitter	S. Kumari, P. Yadav	International Journal of Advanced Computer Science and Applications, 12, 495(2021)	2156-5570 (Online) 2158-107X (Print)	Link	Link	SCOPUS pdf
	An Extended Work Architecture for Online Threat Prediction in Tweeter Dataset	S. Kumari, P. Yadav	International Journal of Computer Science and Network Security, 21, 97(2021)	1738-7906	Link	Link	SCI pdf
23.	Wave propagation characteristics at the welded interface of double-porosity solid and double-porosity dual-permeability materials	M. Kumari, M. Kumar, and M. S. Barak	Waves in Random and Complex Media, 31, 1682 (2021)	1745-5049(Online)	Link	Link	SCI

22.	Reliability measures analysis of a milk plant using RPGT	M. S. Barak , R. Garg, and A. Kumar	Life Cycle Reliability and Safety Engineering, 10, 295 (2021)	2520-1360(Online)	Link	Link	Peer-reviewed
21.	Stochastic Analysis of a Unit Wise Redundant Computer System with Priority to Hardware Repair and Failure of Service Facility during Software Up-gradation	S. C. Malik , R. K. Yadav , and M. S. Barak	International Journal of Statistics and Reliability Engineering, 28, 2150013 (2021)	2456-2378(Online)	Link	Link	UGC Listed
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	Spanning set Labeling of Graphs	Rajpal, Mamta Kamra , S.N. Mishra	International Journal of Advanced Science and Technology, 29, 7s (2020)	2005 - 4238	Link	Link	SCOPUS pdf
	Bycentric subdivision of Graphs and their magic labeling	Rajpal, Mamta Kamra	TEST Journal of Engineering and Management, 83, (2020)	0193 -4120	Link	Link	SCOPUS pdf
	Reflection and refraction of elastic waves at the interface of an elastic solid and partially saturated soils	M. Kumar, A.Singh, M. Kumari, and M.S. Barak	Acta Mechanica, 232, 33 (2020)	1619-6937	Link	Link	SCI pdf
	Stochastic analysis of a non-identical repairable system of three units with priority for operation and simultaneous working of cold standby units	S. Kadyan, and M. S. Barak	International Journal of Statistics and Reliability Engineering, 7, 269 (2020)	2456-2378(Online)	Link	Link	UGC Listed
	Estimation of missing values in fuzzy matrices (FM) and interval-valued fuzzy matrices (IVFM)	D. S. Hooda and M. S. Barak	Life Cycle Reliability and Safety Engineering, 9, 241 (2020)	2520-1360(Online)	Link	Link	Peer-reviewed
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	U (8)- Cordial Labeling of Some Special Graphs	Rajpal, Mamta Kamra	J. of Calcutta Mathematical Soc., 15, (2019)	0080-0659	Link	Link	UGC pdf

	Total Magic Labeling of Some Special Graphs	Rajpal, Mamta Kamra	Bull. Cal. Math. Soc., 111(5), 427-434 (2019)	0008-0659	Link	Link	UGC pdf
	Coupled Fixed Point Theorems in Vector -b- Metric Spaces	Mamta Kamra , Rahul Hooda, Archana Malik	International Journal of Recent Technology and Engineering, Vol.8, Issue 3S3(2019)	2277- 3878	Link	Link	SCOPUS pdf
	Some Common Fixed Point Results for Three Mappings with compatible pairs on vector valued Spaces	Mamta Kamra , Kumari Sarita, Rahul Hooda	International J. of Advanced Science and Technology, 28(9), (2019)	2005 - 4238	Link	Link	SCOPUS pdf
	Some Common fixed point results for three mappings in vector -b- metric Spaces	Mamta Kamra , Kumari Sarita	Interenational J. of Scientific Reseach and Reviews, 8(2), (2019)	2279 -0543	Link	Link	UGC pdf
	Common Fixed Point for Weakly Increasing Dominating Maps on Vector-b-Metric Spaces	Mamta Kamra , Kumari Sarita, Renu Chugh	Research & Reviews Discrete Mathematical Structures, 6(2), (2019)	2394 - 1979	Link	Link	UGC pdf
	Four Mappings with a common fixed point on E-b-Metric Spaces	Mamta Kamra , Kumari Sarita ,Renu Chugh	International Journal of Engineering and Technology, II (1), (2019)	2319- 8613	Link	Link	UGC pdf
	Inhomogeneous wave propagation in partially saturated soils	M.S. Barak , M. Kumar, M. Kumari, and A. Singh	Wave Motion, 93, 102470 (2019)	0165-2125	Link	Link	SCI pdf
	Inventory Model of Deteriorating Product with Discontinuous Demand	R. Kumar , M.Pruthi, G. Taneja	International Journal of Engineering and Advanced Technology (IJEAT), Volume-8 Issue-6, August 2019	2249 – 8958	Link	Link	SCOPUS pdf
	Inventory Model for Deteriorating Products with Life Time and Demand Depending on Price	R. Kumar , M. Pruthi, G. Taneja	International Journal of Advanced Science and Technology, Vol. 27, No. 1, September-2019, pp. 48-52	2005-4238	Link	Link	SCOPUS pdf
	An Inventory Model for Deteriorating Products under Trade Credit, With Life Time and Time Discounting	R. Kumar , M. Pruthi, G. Taneja	International Journal of Advanced Science and Technology, Vol. 27, No. 1, September-2019, pp. 53-60	2005-4238	Link	Link	SCOPUS pdf

13.	Estimation of missing data in design of experiment and contingency table	D. S. Hooda and M. S. Barak	SN Applied Sciences, 1, 670 (2019)	2523-3971(Online)	Link	Link	Scopus
12.	Reflection and transmission of elastic waves from an imperfect boundary between micropolar elastic solid half space and fluid saturated porous solid half space	M. S. Barak and V. Kaliraman	Mechanics of Advanced Materials and Structures, 26, 1226 (2019)	1537-6532(Online)	Link	Link	SCI
11.	Reflection and refraction of plane waves at the boundary of an elastic solid and double-porosity dual-permeability materials	M. Kumar, M. S. Barak , and M. Kumari	Petroleum Science , 16, 298 (2019)	1672-5107(Online)	Link	Link	SCI
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	Some fixed Point theorems for self mappings on vector b-Metric Spaces	Mamta Kamra , Satish Kumar and Kumari Sarita	Global Journal of Pure and applied Mathematics,14 (11), (2018)	0973 - 1768	Link	Link	UGC pdf
	Reflection and transmission of elastic waves from an imperfect boundary between micropolar elastic solid half space and fluid saturated porous solid half space	M.S. Barak and V. Kaliraman	Mechanics of Advanced Materials and Structures 26, 1226 (2018)	1521-0596	Link	Link	SCI pdf
	Reflection of plane seismic waves at the surface of double-porosity dual-permeability materials	M. Kumar, M. Kumari, and M.S. Barak	Petroleum Science 15, 521 (2018)	1672-5107	Link	Link	SCI pdf
	Reflection of inhomogeneous waves at the surface of a dissipative poroelastic media	M. Kumari, M. Kumar, and M.S. Barak	Journal of Porous Media 21, 11 (2018)	1934-0508	Link	Link	SCI pdf
	Inventory Model for Deteriorating Items with Life Time	R. Kumar , M.Pruthi, G. Taneja	International Journal of Engineering & Technology, Vol.7 (3.16), September-2018, pp102-105	2227-524X	Link	Link	SCOPUS pdf
	Inventory Model for Deteriorating Products with Life Time and Shortages	R. Kumar , M.Pruthi, G. Taneja	Journal of Emerging Technologies and Innovative Research	2349-5162	Link	Link	UGC pdf

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	Production Inventory Model for Deteriorating Products with Lifetime	R. Kumar , M.Pruthi, G. Taneja	Research & Reviews: Discrete Mathematical Structures, Vol.5 (3), December-2018, pp15-19	2394-1979	Link	Link	UGC pdf
6.	Seismic reflection and transmission coefficients of a single layer sandwiched between two dissimilar poroelastic solids	M. Kumari, M. S. Barak , and M. Kumar	Petroleum Science, 14, 676 (2018)	1995-8226(Online)	Link	Link	SCI
5.	Effect of local fluid flow on the propagation of plane waves at an interface of water/double-porosity solid with underlying uniform elastic solid	M. S. Barak , M. Kumari, and M. Kumar	Ocean Engineering	1873-5258(Online)	Link	Link	SCI
4.	Stochastic analysis of two-unit redundant system with priority to inspection over repair	M. S. Barak , D. Yadav, and S. K. Barak	Life Cycle Reliability and Safety Engineering, 7, 71 (2018)	2520-1360(Online)	Link	Link	Peer-reviewed
3.	Profit analysis of a two-unit cold standby system model operating under different weather conditions	M.S. Barak , Neeraj, S. K. Barak	Life Cycle Reliability and Safety Engineering, 7, 173 (2018)	2520-1360(Online)	Link	Link	Peer-reviewed
2.	Stochastic analysis of a two-unit system with standby and server failure subject to inspection	M.S. Barak , D. Yadav, and S. Kumari	Life Cycle Reliability and Safety Engineering , 7, 23 (2018)	2520-1360(Online)	Link	Link	Peer-reviewed
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