

HRITHIK KIRAN BAGADE

HEN Neil Armstrong first stepped on the Moon, from Apollo 11's lunar module, on July 20, 1969, his iconic words -- "That's one

small step for a man, one giant leap for mankind" -- were more than a catchphrase for posterity. They reflected the futuristic fascination that drew the human species to the Moon and beyond, for the purpose of adventure, science, exploration, and at present hypothetically-speaking, 'colonisation'.

The Moon, being the Earth's nearest celestial object, has particularly evoked immense interest for its sheer majesty, and also as a gateway to further future cosmic odysseys. Accordingly, astrophysicists and the pundits of sci-fi have charted a theoretical roadmap for colonisation of the Moon. The idea is that in the future, humans may live and work on the moon for weeks or even months. It is a process or concept employed by some pro-

Caves have been found under the Moon's surface, indicating a probable shelter for future researchers, while NASA is already planning a 'Gateway'. Today. human lunar habitation is not just theory, but a serious area for scientific study

posals for robotic or human exploitation and settlement endeavours on Earth's natural satellite. Energy and power will make it possible to travel to and live on the lunar surface. Humans must choose the appropriate energy source and technological means to produce that power. Solar energy is abundant on the moon, and ways must be found to effectively harness it.

While a range of proposals for missions of lunar colonisation, exploitation or permanent exploration have been raised, current projects for establishing a permanent crewed presence on the Moon are not for colonisation, but to focus on building moonbases for exploration and to a lesser extent for harnessing lunar resources. In reality, currently, global space agencies, including India's ISRO, are looking at studying specific regions of the lunar surface, so as to understand the scientific potential that the Moon may unlock, as we dive deeper into space.

When we talk about looking at a suitable perennial energy resource to run extended lunar missions, in the form of crewed stations, one must also take into account the topography and environment of the Moon. The Moon is not one smooth white/ grey ball of rock. It's surface is composed of Anorthosite, which is a calcium-rich white rock, almost entirely made up of plagioclase feldspar, a common, lightweight, light-coloured mineral on Earth. It is an igneous rock, which means it cooled and solidified from hot melted material.

Also, the Moon's environment is not nearly as easy to live in as Earth's. Apart from the toxic lunar dust, the sparse atmosphere provides no protection from meteorites or radiation. The temperature fluctuations on the Moon are also intense, ranging from -248 to 127 degrees Celsius. This again leads to the question

Modak Mahindra Bank Limited SALE OF ASSET Registered Office: 278KC, C-27, G-Block, Bandra Kurla Complex, Bandra (E), Mumbai-400051

Brench Office : Katak Mehindre Bank Ltd - No 22, Katak House, 2nd Floor, M G Road, Bengaluru - 560001

SALE NOTICE FOR SALE OF IMMOVABLE PROPERTIES

Financial Assets And Enforcement Of Security Interest Act, 2002 Under Rule 8(5) Read With Proviso To

sequent To The Assignment Of Debt In Favour Of Kotak Mahindra Bank Limited By "Fullerton India

Home Finance Company Limited(hereinafter Referred To As "FIHFCL") the Authorised Officer Of

Kotak Mahindra Bank Limited (hereinafter Referred To As "The Bank/ Kmbl/Secured Creditor) Has

Taken The Physical Possession Of Below Described Immovable Property (hereinafter Called The

Notice is Hereby Given To The Borrower (s) And Guarantor (s) In Particular And Public in General That

The Bank Has Decided To Sale The Secured Asset Through E-auction Under The Provisions Of The Sarfaesi Act, 2002 On "as is Where Is", "as Is What Is", And "whatever There Is" Basis For Recovery Of

Rs.15,71,615i- (rupees Fifteen Lakh Seventy One Thousand Six Hundred Fifteen Only)

Outstanding As On 15.07.2024 Along With Future Applicable Interest Till Realization, Under The Loan

Account No. 601007210224264; Loan Availed By Mrs. Shilpa C& Mr. Prakash R As Per Below

Secured Asset) Mortgaged charged To The Secured Creditor On 17.85.2024

Detail

21.06.2024

of how can the Moon be made more survivable, begging the need for shelters. In addition to protecting inhabitants from meteorites, radiation and toxic lunar dust, a sealed shelter would allow them to breathe. While the pursued purpose of moonbases is mostly for space exploration, exploiting and commercialising the Moon, it also theoretically advocates for a lunar and cis-lunar infrastructure, economy and settled society. Hence, conditions ought to be appropriated.

Discovery of a cave

In this direction, just this week, a team of international scientists, under the lead of the University of Trento, Italy, have made a breakthrough. They published a paper in Nature Astronomy, demonstrating the existence of a tunnel in the lunar subsurface. It seems to be an empty lava tube, which could pave the way for human habitation on the Moon. "These caves have been theorised for over 50 years, but it is the first time ever that we have demonstrated their existence," explains Lorenzo Bruzzone, professor at the University of Trento.

How was this demonstration achieved? Bruzzone explains: "In 2010, as part of the ongoing LRO NASA mission, the Miniature Radio-Frequency (Mini-RF) instrument acquired data that included a pit in Mare Tranquilitatis. Years later we have reanalysed this data with complex signal processing techniques we have recently developed, and have discovered radar reflections from the area of the pit that are best explained by an underground cave conduit. This discovery provides the first direct evidence of an accessible lava tube under the surface of the Moon."

"Thanks to the analysis of the data we were able to create a model of a portion of the conduit," continues Leonardo Carrer, re-



Apollo 11's Buzz Aldrin with the US flag on the Moon | NASA

searcher at University of Trento. This study has scientific implications for the development of missions to the Moon, where the environment is hostile to human life. The aforesaid conditions drive the need to find safe sites for the construction of infrastructure that can support sustained exploration. Caves such as this one offer a solution to that problem, the scientists conclude.

Breathing on the Moon is out of question. The Moon technically does have an atmosphere, but the gases are so spread out that they do not support breathing.

Experiments on the International Space Station have shown how recycling air systems could be adapted for the Moon. This could look like planting oxygenemitting plants in lunar greenhouses, and then sending the purified air through sealed habitation pods. This would be an entirely new way of life that humans would need to adapt to. Also, producing and storing food to survive long periods in an alien world is kev.

How can food be cultivated 384,400 km from our planet, at a place lacking requisite air, soil, or water? Lunar soil does not contain reactive nitrogen, a mineral that is necessary for plant growth. In a 2019 study, researchers were able to harvest tomatoes, peas,

radishes, cress, and rve from simulated lunar soil. Also, greenhouses can simulate Earth-like soil conditions. The said research is able to depict a plausible way how fresh food can be harvested on the lunar surface. Another issue is about watering the crops. While the discovery of detectable molecular water on the near side of the Moon in October 2020 suggests that water may be more widespread, and not limited to the far side and colder regions, it is still to be seen how easily it can be accessed. If this lunar water is clean and easily attainable, it would be much quicker and economical than shuttling water from Earth. In addition, NASA is currently able to grow food on the space station. This promising development could be replicated in other microgravity environments, such as the Moon.

First lunar station

The future is now. NASA and its partners are already developing the foundational systems needed for long-term exploration of the Moon, with the Artemis campaign. "Following the Artemis III mission that will land the first people near the Moon's South Pole, astronauts on Artemis IV will live and work in humanity's first lunar space station, Gateway, which will enable new opportunities for science and preparation for human missions to Mars. The mission will bring together an intricate choreography of multiple launches and spacecraft dockings in lunar orbit, and will feature the debut of NASA's larger, more powerful version of its SLS (Space Launch System) rocket and new mobile launcher." says NASA.

The Moon is even closer to the Earth today, than it actually is. It is technically possible to live on the Moon, say scientists, but many small steps for science and sustainability are needed, before that giant leap.

PSPCL Punjab State Power Corporation Limited (Regd. Office: PSEB Head Office, The Mall, Patiala-147001) Corporate Identity Number U40109PB2010SGC033813 Website: www.pspcl.in

Mobile No. 96461-55525 Short Term E-Tender Eng. No. 7575/P-3/EMP-12723 dated 15.07.24

Dy. Chief Engineer/ Headquarter (Procurement Cell-3) GGSSTP, Roopnagar invites E-Tender ID No.2024_POWER_123837_1 for the Procurement of Spares for Seal Assy. Set for Hot air gates of Bowl mills of stage-III of GGSSTP, Ropar. For detailed NIT & Tender Specification please refer to https://eproc.punjab.gov.in

from 16.07.24/5:00 PM onwards. **Note:** Corrigendum & addendum, if any will be published online at

https://eproc.punjab.gov.in

563/RTP-63/24-7/16/2024 76155/12/3113/2023/35697



BELAGAVI SMART CITY LIMITED (BSCL) Registered Office: 1st Floor, BUDA Office, Ashok Nagar, Belagavi-590016. Phone: 0831-2461352 / 2474166 E-mail: bscltd16@gmail.com, Website: www.bscl.in

No: BSCL/CS/Notification/I & S Auditor/2024-25/329 Date: 03-07-2024

RECRUITMENT NOTIFICATION Managing Director, Belagavi Smart City Limited, Belagavi called

applications for the below mentioned post.

(1) Internal Auditor - 01. (2) Secretarial Auditor - 01. For further details check our official website: www.bscl.in. Last Date for receipt of application is 31-07-2024 at 5.30 PM.

Sd/- Managing Director, Belagavi Smart City Limited, Belagavi DIPR/Belagavi/391/Adverto/2024-25

TENDER NOTICE NO. 16/2024 Dated: 12/07/2024 The undersigned, on behalf of the President of India, invites E-Tender through

IF	REPS only	for supply of following items: Tender Clo	sing Time:	10:30 Hrs.	
SI.	Tender No. Description in Brief		Qty.	Tender Due on	
1	CH241401	Osimertinib 80MG TAB	180 Nos	22.07.2024	
2	CH241086	Recomibinant Human DNA Origin Monocomponent Insulin	1500 Nos	22.07.2024	
3	30241334	41334 Two Piece FRP Glass Shutter		30.07.2024	
4	60242042	Glass Filled Nylon-66 Insulating Liners	809420 Nos	31.07.2024	
5	33241372	SS Inner Bracket for Bio Tank	348 Nos	07.08.2024	
6	83241103	Top coated Thermal Paper Ticket	43964 Rolls	12.08.2024	
7	33241234	4 Inter Car Gangway Mounting		12.08.2024	
8	83243000	3243000 Eco-Friendly Paper Packing Bed Roll Cover 153993 Nos		19.08.2024	
9	33241390	41390 One Coach Set of Air Spring Assembly 160 KN 72 Capacity		19.08.2024	
10	33241069A	Non asbestos based organic Brake Pad	29045 Nos	14.08.2024	

PUB/272/AAS/PRB/SWR/2024-25 Principal Chief Materials Manager, Hubballi f South Western Railway - SWR 🌘 southwestermailway_ewr 🕟 SWRRLY 🕩 southwestermailway 🖜 SWRRLY

473 Kms 05.08.2024

11 56241091A PVC Signaling Cable 12 core 1.5 sq.mm

PUBLIC NOTICE

NOTICE is hereby given to the public that we are investigating the title of the Owners (given below) in respect of the lands more particularly described hereunder written ("Schedule Land") as the same is intended to be sold/leased by the Owners in favour of my client.

SL No.	Sy No.	GPA Extent.		Name of the Kathedar	
		Acres	Guntas		
1	116/1	3.	00	Paravva Wife of Gangappa Umachagi	
2	116/2	1. 1.	00	Paravva Wife of Gangappa Urnachagi	
3	116/3	0	38	Kumar Son of Channappa Gondabala	
4	116/4	1	14	Ravichandra Son of Channappa Gondabala	
Sched	lule Lands i	s situated at Ye	rehanchinala Vi	llage, Kukanura Hobli, Kukanura Taluk, Koppal District.	

All or any person having any claim against or in respect of the Schedule Land or any part or portion thereof by way of sale, agreement for sale, assignment, exchange, tenancy, rent, lease, sub-lease, license, trust, lien, easement, inheritance, possession, atatachment, share, mortgage by deposit of title deeds, mortgage, charge gift, will, bequest, maintenance, family arrangement/settlement, undivided interest, lis-pendens decree, order of any adjudicating authority or otherwise howsoever ("Claims") are hereby requested to make the same known in writing along with documentary evidence to the undersigned at the office address mentioned herein below within 15 (fifteen) days from the date hereof, failing which it shall be deemed that the claimant(s) has / have relinquished such Claims and/or waived and/or abandoned the right to exercise such Claims and the right, title and interest of the Owners to the Schedule Land shall be deemed to be clear and marketable and free from all encumbrances of any nature whatsoever.

Sd/- Advocate: S.T.Prashantha Kumar, Senior Partner, Fox Mandal & Associates LLP, FM House, Gurappa Avenue, 6/12, Primrose Road, Bengaluru, Karnataka 560025, Phone: +91 80 2559 5911

SOUTH WESTERN RAILWAY Notice Auction Sale: H/C.592/LPO/Auction/

UBL/2024 Dated: 11-07-2024 The undersigned, on behalf of the President of India, invites E-Tenders for the following work.

Name of the Auction sale Undelivered Parcels & Raddi Paper lying at Lost Property Office Hubballi, will be sold by public Auction at Hubballi Railway Station.

Date & Time of Auction Sale

24-07-2024 at 11.00 Hr	5.
Senior Divisional Commercia	Manager
UB/268/AAS/PRB/SWR/2024-25	Hubballi
South Western Railway - SWR (SWRRLY	SWRRLY

All the news.

In just a click.

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Date - 17.07.2024, Place - Dharwad

Reserve Price Earnest Money Deposit (EMD) Last Date For Submission Of Emd With Kyo

Particular

Date Of Auction

Time Of Auction

20.06.2024 UP TO 5:00 P.M. (IST) All That Piece And Parcel Of The Proiperty Bearing Site No.28/1 Description Of The Secured Khata No. 142/51/2/28/1, St. No. Pr. 197-2017-18, Situated At Basavanapura Village, Begur Hobli, Bangalore South Taluk, Now Under The Limit Of Bomp Ward No. 192, Gottigere, Measuring East. To West: 36 Feet, North To South: (10+12)/2 Feet, In All 396 Sq.ft. Along With Building Constructed Therein, And Bounded On The: East By- Private Property, West By- Josephs Property, North By-Isak's Property, South By-Road.

Rs. 11,00,000F (Rupees Eleven Lakh Only)

Rs. 1, 10,000/- (Rupees One Lakh Ten Thousand Only)

Between 12:00 Pm To 1:00 Pm With Unlimited Extension Of

he Borrowers' Attention is Invited To The Provisions Of Sub Section 8 Of Section 13, Of The Act. In espect Of The Time Available, To Redeem The Secured Asset. Borrowers in Particular And Public It General May Please Take Notice That If In Case Auction Scheduled Herein Falls For Any Reason Whatsoever Then Secured Creditor May Enforce Security Interest By Way Of Sale Through Private Treaty: In Case Of Any Clarification/requirement Regarding Assets Under Sale, Bidder May Contact Mr. Vasanth Kumar H P (+91 9964722505), Mr. Nagaraj K (+91 8296621749). Bidder May Also Contact The Bank's livr No. (*91-9152219751) For Clarifications. For Detailed Terms And Conditions Of The Sale. Please Refer To The Link https://www.kotak.com/en/bank-auctions.html Provided in The Bank's Website I.e. www.kotak.com and/or On http://bankauctions.in/ PLACE: BENGALURU, DATE:17.07,2024 For Kotak Mahindra Bank Ltd., Authorized Officer

Equitas Small Finance Bank Ltd POLICES (FORMERLY KNOWN AS EQUITAS FINANCE LTD)

Registered Office: No.769, Spencer Plaza, 4th Floor, Phase-II, Anna Salai, Chennai - 600002. POSSESSION NOTICE (U/s. Rule 8 (1) - for immovable property)

Whereas the undersigned being the Authorized Officer of M/s. Equitas Small Finance Bank Limited, under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest [Act, 2002 (54 of 2002)] and in exercise of powers conferred under section 13(12) read with [Rule 3] of the Security Interest (Enforcement) Rules 2002, issued a Demand Notice calling upon the below mentioned Borrowers to repay thetotal outstanding amount mentioned in the notice being within 60 days from the date of receipt of the said notice. Since the below mentioned Borrowers having failed to repay the below stated amount within the stipulated time, notice is hereby given to the below mentioned borrowers andthe public in general that, the undersigned has taken possession of the property described herein below in exercise of powers conferred on him under Sub-Section (4) of Section 13 of the said Act read with Rule 8 of the Security interest Enforcement Rules, 2002. The Borrowers in particularand the public in general are hereby cautioned not to deal with the schedule mentioned properties and any dealings with the properties will be subject to the charge of M/s. Equitas Small Finance Bank Limited and further interest and other charges thereon." The Borrower's attention is invited to provisions of sub-section (8) of section 13 of the Act, in respect of time available, to redeem the secured assets."

SR NO	Name of the Borrower(s) / Guarantor(s)	Description of Secured Asset (Immovable Property)	Demand Notice Date and Amount	Symbolic possession taken date
ĩ	Applicant: SURESH BETAGERI, All the piece and parcel of the immovable Schedule The property bearing Gram Panchayath No: 464, situated at, Managundi Village, & Mansur Gram Panchayath, Dharwad Taluk, Dharwad District. North by: Government Road, South by: Different property of Suresh Betageri, East by: Government Road, West by: Property of Mudukappa Beddibagil. Measurement: measuring East to West 39 Ft. North to South of 60 Ft, totally to an extent of 2340 SqFt. Situated at within the Sub-Registrar of DHARWAD and Registration District of DHARWAD.		02.05.2024 & 623753	11-07-2024
2	BRANCH - Dharwad Loan No - SEDARWD0246754 BORROWER - GANGAVVA RUDRAPPA KENCHAPPANAVAR KENCHAPPANAVAR CO-Borrower - RUDRAPPA KENCHAPPANAVAR Applicant: GANGAWA RUDRAPPA KENCHAPPANAVAR. All the piece and parcel of the immovable The Schedule property Gram Panchayath No: 354/29, situated at Tegur Village & Gram Panchayath, Dharwad Taluk & District North by: Property of Yunus Savadatti, South by: Property of Rudrappa Hawaldar, East by: Property of Dundappa Munavalli, West by: Government Road. Measurement measuring East to West 50 Ft & North to South 30 Ft, totally to an extent of 1500Sq.Ft. Situated at within the Sub-Registrar of DHARWAD and Registration District of DHARWAD.		02.05.2024 & 218034	11-07-2024
3	BRANCH - Dharwad Loan No - SEDARWD0159731 BORROWER - Ningappa Horakeri Co-Borrower - Tippavva Horakeri	Applicant: Ningappa Horakeri, All the piece and parcel of the immovable Schesule the Property Bearing P St. No 8 and P.No. 9, sitiuaed at Jirigewada, Village, Kotabagi gram Panchayath, Dharwad taluk, and Dist. North: Gavathanaa Haddu, South: Road, East: Fakkirappa Ravappa Horakeres Property, West by: Roa an Shankrappa Horakere An Others Property. Measurement: measuring East to West 16 Feet, North to South 100 Feet, total 1600 Sq.Feet. Situated at within the Sub-Registrar of Dharwad and Registration District of Dharwad.	03.02.2024 & 232246	11-07-2024
4	BRANCH - Dharwad Loan No - SEDARWD0408578 BORROWER - PILIPSA BILLA Co-Borrower - MAREMMA, PRASAD CHANNAYYA BILLA	Guarantor 1: MAREMMA BILLA, All that piece and parcel of property bearing Asse No:151300100200100302 Gram Panchayath No:138/47situated at, Aravatagi Village & Aravatagi Gram Panchayath, Alnavar Taluk, Dharwad District, North by: Govt Road, South by: Property of Laxmi Byatagar, East by: Property of Renavva Angadi, West by: Common Wall Property of Yallavva Nayikar. Measurement: measuring East to West 10:00 Sq Mtr & North to South 12:10 Sq Mtr of totally to anextent of 121:00 Sq Mtr (1301 Sq Ft) Built up Area 104:41 Sq Mtr (1123 Sq Ft). Situated at within the Sub-Registrar of Alnavar and Registration District of Dharwad	27.04.2024 & 502404	11-07-2024

DOCUMENTS LOST

. Smt. Rathnamma W/o B.Srinivasulu, Age 48, H.No. 35, W.No. Srirampura Colony, Ballari. It's notified

information that original Documents which received B.Srinivsulu S/o Pedda Eranna by DC office bearing No. A/Dis/Rev/0380/LND/ 7071 have been lost on 13.07.2024 at 3.00 PM

while going at Near Anjaneyya Temple, Mudragi Village, Complaint has given. If anybody found please Contact Near Police Station or 9686084980

PUBLIC NOTICE "Notice" is hereby given to the general public at large that our client is intending to purchase/lease the following parcels of lands. Agreement/ Sale

No.	62	HOSOVOFA EXIGIL		Haine of the National		
		Acres	Guntas			
		62 7 02	02	Salimath Alias Hiremath Veerabhadrayy Adopted Son of Mr. Karaveerayya.		
bov	e survey	number	is situated	at Kadadi Village, Betageri Hobli, Gadaç		

Taluk, in Gadag District, Karnataka. All or any person having or claiming any right, interest, claim of whatsoever nature

in the above mentioned Properties by way of sale, exchange, lease, license, trust, lien, easement, inheritance, possession, attachment, mortgage, charge gift, lis-pendens or otherwise is hereby requested to make the same known in writing with copies of all supporting documents to the undersigned at the office address mentioned herein below within 7 days from today, failing which it shall be presumed that no such claim exists and even if such claim exists in law or otherwise it shall be deemed that the claimant/s has relinquished such claim and / or waived its rights to exercise such claim and such claim shall not be binding on our clients and our clients shall proceed with the purchase of the said Properties by entering into the registered agreements/ sale deed/GPA.

Sd/- KING STUBB & KASIVA ADVOCATES & ATTORNEYS 1A, 1B & 2B, Lavelle Mansion, 1/2, Lavelle Road, Bangalore – 560001.



INDIAN RAILWAYS **PUBLIC NOTIFICATION**

Notice is hereby given to all users of Railway lines and premises situated on the completed section of the under noted section of the Indian Railway that the 25,000 Volt 50 Hz AC. Overhead Traction wires will be energized on or after the date specified against the section. On and from the same date the Overhead Traction line shall be treated as "LIVE" at all times and no unauthorized person shall approach or work in the proximity of the said

overhead line. Section Date Zone South Western EMD SHED (Rd.3 to RD 11) at Hubballi 18.07.2024 Railway

Proforma 10 - 02 INDIAN RAILWAYS **INTRODUCTION OF 25 KV AC TRACTION**

"WARNING TO ROAD USERS"

It is notified for information of the public that in connection with introduction of 25 KV AC Electric Traction on and from the dates mentioned against the following sections of Indian Railway, height gauges have been erected at all the level crossings with clear maximum height of 4.78 meter above road level with a view to prevent loads of excessive height from coming into contact or dangerous proximity to "LIVE" traction wires (Contact Wire), which shall be at a height of minimum 5.5 meter above the rail level at level crossings.

Section	Date	Zone
EMD SHED (Rd.3 to RD 11) at Hubballi	18.07.2024	South Western Railway

Public are hereby, notified to observe the height specified above for the purpose of loading Vehicles and to see that loads carried in road Vehicles do not infringe the height gauges under

i) Danger to the height gauge and consequent obstruction to the Road as well as the

Danger to the materials or equipment's carried out or the vehicle itself;

The Dangers of a load of excessive height are as follows:

iii) Danger of fire and risk of life due to contact with or dangerous proximity to the conductors. General Manager (Electrical) Place : Bangalore Date: 16.07.2024 Rail Vikas Nigam Limited, Bangalore.

SERVING CUSTOMERS WITH A SMILE





Authorized officer, Equitas Small Finance Bank Ltd