



# Extracts from the Register of Copyrights



## प्रतिलिप्यधिकार कार्यालय, भारत सरकार | Copyright Office, Government Of India

दिनांक/Dated:29/05/2024

- पंजीकरण संख्या/Registration Number : **L-148404/2024**
- आवेदक का नाम, पता तथा राष्ट्रीयता  
Name, address and nationality of the applicant : **BIRLA INDUSTRIAL & TECHNOLOGICAL MUSEUM , 19A, GURUSADAY ROAD, KOLKATA-700019 INDIAN**
- कृति के प्रतिलिप्यधिकार में आवेदक के हित की प्रकृति  
Nature of the applicant's interest in the copyright of the work : **OWNER**
- कृति का वर्ग और वर्णन  
Class and description of the work : **LITERARY/ DRAMATIC WORK BROCHURE HIGHLIGHTING THE EQUIPMENT AND EXPERIENCES AVAILABLE TO VISITORS DURING A GUIDED TRIP THROUGH AN UNDERGROUND MOCK-UP COAL MINE AT BITM, KOLKATA**
- कृति का शीर्षक  
Title of the work : **MOCK-UP COAL MINE (BROCHURE)**
- कृति की भाषा  
Language of the work : **ENGLISH**
- रचयिता का नाम, पता और राष्ट्रीयता तथा यदि रचयिता की मृत्यु हो गई है, तो मृत्यु की तिथि  
Name, address and nationality of the author and if the author is deceased, date of his decease : **SUBHABRATA CHAUDHURI , BIRLA INDUSTRIAL & TECHNOLOGICAL MUSEUM, 19A, GURUSADAY ROAD, KOLKATA-700019 INDIAN**
- कृति प्रकाशित है या अप्रकाशित  
Whether the work is published or unpublished : **PUBLISHED**
- प्रथम प्रकाशन का वर्ष और देश तथा प्रकाशक का नाम, पता और राष्ट्रीयता  
Year and country of first publication and name, address and nationality of the publisher : **2023 INDIA BIRLA INDUSTRIAL & TECHNOLOGICAL MUSEUM , 19A, GURUSADAY ROAD, KOLKATA-700019 INDIAN**
- बाद के प्रकाशनों के वर्ष और देश, यदि कोई हों, और प्रकाशकों के नाम, पते और राष्ट्रीयताएँ  
Years and countries of subsequent publications, if any, and names, addresses and nationalities of the publishers : **N.A.**
- कृति में प्रतिलिप्यधिकार सहित विभिन्न अधिकारों के स्वामियों के नाम, पते और राष्ट्रीयताएँ और समनुदेशित करने या अनुज्ञापति देने के लिए अधिकृत के अधिकार का विस्तार, यदि कोई हो।  
Names, addresses and nationalities of the owners of various rights comprising the copyright in the work and the extent of rights held by each, together with particulars of assignments and licences, if any : **BIRLA INDUSTRIAL & TECHNOLOGICAL MUSEUM , 19A, GURUSADAY ROAD, KOLKATA-700019 INDIAN**
- अन्य व्यक्तियों के नाम, पते और राष्ट्रीयताएँ, यदि कोई हों, जो प्रतिलिप्यधिकार वाले अधिकारों को समनुदेशित करने या अनुज्ञापति देने के लिए अधिकृत हों  
Names, addresses and nationalities of other persons, if any, authorised to assign or licence of rights comprising the copyright : **N.A.**
- यदि कृति एक 'कलात्मक कृति' है, तो कृति पर अधिकार रखने वाले व्यक्ति का नाम, पता और राष्ट्रीयता सहित मूल कृति का स्थान। (एक वास्तुशिल्प कृति के मामले में कृति पूरी होने का वर्ष भी दिखाया जाना चाहिए)  
If the work is an 'Artistic work', the location of the original work, including name, address and nationality of the person in possession of the work. (In the case of an architectural work, the year of completion of the work should also be shown). : **N.A.**
- यदि कृति एक 'कलात्मक कृति' है जो किसी भी माल या सेवाओं के संबंध में उपयोग की जाती है या उपयोग किए जाने में सक्षम है, तो आवेदन में प्रतिलिप्यधिकार अधिनियम, 1957 की धारा 45 की उप-धारा (i) के प्रावधान के अनुसार व्यापार चिह्न रजिस्ट्रार से प्रमाणन शामिल होना चाहिए।  
If the work is an 'Artistic work' which is used or capable of being used in relation to any goods or services, the application should include a certification from the Registrar of Trade Marks in terms of the provision to Sub-Section (i) of Section 45 of the Copyright Act, 1957. : **N.A.**
- यदि कृति एक 'कलात्मक कृति' है, तो क्या यह डिजाइन अधिनियम 2000 के अंतर्गत पंजीकृत है? यदि हां, तो विवरण दें।  
If the work is an 'Artistic work', whether it is registered under the Designs Act 2000, if yes give details. : **N.A.**
- यदि कृति एक 'कलात्मक कृति' है, जो डिजाइन अधिनियम 2000 के तहत एक डिजाइन के रूप में पंजीकृत होने में सक्षम है, तो क्या यह औद्योगिक प्रक्रिया के माध्यम से किसी वस्तु पर प्रयुक्त की गई है और यदि हां, तो इसे कितनी बार पुनरुत्पादित किया गया है?  
If the work is an 'Artistic work', capable of being registered as a design under the Designs Act 2000, whether it has been applied to an article through an industrial process and, if yes, the number of times it is reproduced. : **N.A.**
- टिप्पणी, यदि कोई हो/Remarks, if any : **NONE**

डायरी संख्या/Diary Number: 9389/2024-CO/L

आवेदन की तिथि/Date of Application: 27/03/2024

प्राप्ति की तिथि/Date of Receipt: 27/03/2024



*(Signature)*  
रजिस्ट्रार ऑफ़ कॉपीराइट्स  
Registrar of Copyrights



COOPERSBUSH COFFICE

NEW DELHI

Phone No. 914840452024

Date 23/05/2024

# COAL MINE



*It's not mere enjoyment  
but an experience*  
इकत की अडिब

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NEW DELHI

Reg. No. - L-148404/2024

Date: 22/05/2024



**K**olkata is still being dug up for expansion of the East-West corridor of Metro Railway. Some people say that Kolkata is probably floating on oil. But a Coal Mine in Kolkata? Yes, you will have a thrill of getting into the darkness of an underground Coal Mine when you visit the Mock-up Coal Mine at Birla Industrial and Technological Museum, the oldest Government-owned Science Museum of the country.

This Mock-up Coal Mine, which was opened on **June 11, 1983**, is a great opportunity for going into a real coal mine. Then, large number of people have visited this exciting



**COMMENTS**  
The Mock-up Coal Mine is made full scale like real Coal Mine. So that while going through if you will have a thrill of going underground. Coming out of the cage, you will see Manager's Office where the miners take instructions before going to the working place and then you will pass through air lock doors into the pit bottom. Here you will be surprised to see the mysterious underground world.



You can see two main systems of mining practiced in India, namely, **Bord & Pillar and Longwall Mining.**

The machinery used in both the systems is shown nearly to scale. You will see in Bord and Pillar Mining, Coal-cutting machines, continuous Miner and



In Longwall, one can see Power Loader, Belt & Chain Conveyors and Friction Drums. You can also see different kinds of roof supports like Roof Bolts, Wooden Props, Cogs and Joist and can get a view of both sand stowing and caving systems in Longwall face.

Working in underground is not really as hazardous as is thought of. You can see safety lamp used to measure the percentage of explosive methane gas, stone dust barriers to avoid propagation of fire and a very good communication system to maintain contact with the surface.



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विकास की भाँड़





RooF and floor convergence issues are quite frequent inside the downcast Coal Mine. Taking preemptive measures to tackle such incidences, therefore, is one of the major challenges on the part of the mining professionals over the year.

**Telescopic Convergence Indicator** measuring convergence between the roof and the floor of a mine; **Suspension Convergence Indicator** – an equipment to measure roof or floor convergence in mines; **Anchorage Testing Machine** – to check maximum withstand load of roof bolts inside a mine, to name a few, are some of the new modern mining instruments and indicators are here to enhance the immersive experience of they.



ground, a **Portable Machine**, used for rope cable, is also a is underground

Visit to an underground mine creates a sense of wonder and excitement. You will enjoy and get an overall idea of the underground mining situation.

Reg. No. - L-148404/2024

Date 29/05/2024



### Visiting Hours to the Museum

9:30 am to 6:00 pm

Museum is open everyday, except on Holi & Diwali  
Special concession for school students in groups



Technological Museum

Council of Science Museums  
Government of India  
Kolkata - 700019

[www.facebook.com/BITMKolkata](https://www.facebook.com/BITMKolkata)

<https://www.youtube.com/birlamuseum>