

IBAAS 2016,  
CIRCULAR II. JUNE 2016



**INTERNATIONAL BAUXITE, ALUMINA & ALUMINIUM SOCIETY (IBAAS)**

# **“ALUMINIUM INDUSTRY - THE EVOLVING ASIA-PACIFIC STORY”**

**WITH ONE DAY THEME SYMPOSIUM ON  
ENERGY REDUCTION IN ALUMINIUM SMELTING**

**JOINTLY ORGANIZED WITH  
IIM-THE INDIAN INSTITUTE OF METALS  
ON SEPTEMBER 26, 2016**

**SEPTEMBER 26-28, 2016**

**VENUE**

**RADISSON BLU HOTEL & RESORT,  
SOUTH GOA**

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Participating Organizations





## Participating Organizations

Encouraging response is being received from several organizations /companies and experts for the contribution of technical papers / presentations and participation in this symposium. Some of the participating companies of IBAAS-2016 symposium are as follows:

- ✚ Aditya Birla Science and Technology Company Pvt. Ltd. (ABSTCPL), India
- ✚ AGH-University of Science and Technology, Poland
- ✚ AICircle, Singapore
- ✚ Almatis Alumina Pvt. Ltd, India
- ✚ Altech Chemicals Limited, Australia
- ✚ Alteo-Alumina, Japan
- ✚ Aluminium of Greece
- ✚ Amber Development, France
- ✚ Andritz Technologies Pvt Ltd., India
- ✚ BALCO, India
- ✚ Bhuvaneshwari Mineral Consultancy, India
- ✚ Cachamay Aluminum Technologies
- ✚ Carborundum Universal, India
- ✚ Castwel Industries, India
- ✚ Century NF Casting, India
- ✚ China Aluminium International Engineering Corporation Limited (CHALIECO)
- ✚ Credo, India
- ✚ CRU, India
- ✚ CSIR - National Metallurgical Laboratory (NML), India
- ✚ CSIR - North East Institute of Science and Technology (NEIST), India
- ✚ CSIR-Institute of Minerals and Materials Technology (IMMT), India
- ✚ Culrea Consultancy
- ✚ Cytec Solvay Group, USA
- ✚ Emirates Global Aluminium (EGA), UAE
- ✚ Guiyang Aluminum Magnesium Design & Institute Corporation Limited, (GAMI), China
- ✚ Gerald Metals Group, India
- ✚ Goa Bauxite Mine of Gosalia Group, India
- ✚ Hallmark Minerals (I) Pvt Ltd, India
- ✚ Hindalco Industries Limited, India
- ✚ Ion Exchange (India) Limited
- ✚ Indian Institute of Chemical Engineers
- ✚ Indian Institute of Technology (IIT) (Kanpur)
- ✚ Information Handling Services (IHS), UK
- ✚ Jawaharlal Nehru Aluminium Research Development & Design Centre (JNARRDC), India
- ✚ Jingjin Environmental Protection Equipment Co. Ltd., China
- ✚ Kalinga Institute of Industrial Technology (KIIT), India
- ✚ KAN NAK, Switzerland
- ✚ Madras Consultancy Group, India
- ✚ Metal Recycling Association, India
- ✚ Minex Metallurgical Co Ltd
- ✚ NALCO Chemicals, Australia
- ✚ NALCO, India
- ✚ Norsk Hydro ASA, Norway
- ✚ OJSC "North Onega Bauxite Mine", Russia
- ✚ Prima Resources Pty Ltd., Australia
- ✚ Rio Tinto Alcan, Canada
- ✚ Roskill Information Services Ltd., UK
- ✚ Sefar India Private Limited
- ✚ SEP Salt & Evaporation Plants Ltd., Switzerland
- ✚ SGL CFL CE GmbH, Germany
- ✚ Super Auto Forge, India
- ✚ The Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- ✚ The Indian Institute of Metals
- ✚ The Energy and Resources Institute, India
- ✚ Unimark International
- ✚ Vedanta, India
- ✚ West African Bauxite S.A., Guinea
- ✚ Zhejiang Zili Corporation Limited, China



## Invitation

On behalf of the organizing committee, it is our pleasure to invite you to participate in the Fifth IBAAS International symposium (IBAAS-2016), being held in Goa, India during September 26 - 28, 2016.

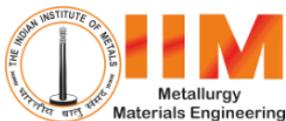
The theme of the IBAAS-2016 symposium is “Aluminium Industry-The Evolving Asia-Pacific Story”. The first day of the Symposium is entirely devoted to Energy Reduction in Aluminium Smelting Industry and is organised jointly with The Indian Institute of Metals. **The details of this one day theme symposium are provided at the end of this circular.**

The Symposium will provide an excellent opportunity to meet and interact with primary aluminium industries and International experts, scientists, engineers, entrepreneurs, equipment manufacturers, representatives of related industries world over.

*Best Regards,*

**International Bauxite, Alumina & Aluminium Society (IBAAS)**

## Associated Organizers



The Indian Institute of Metals



China Aluminium International  
Engineering Corporation Limited



Aditya Birla Science and  
Technology Company Pvt.Ltd



Jawaharlal Nehru Aluminium  
Research Development & Design Centre



Indian Institute of  
Chemical Engineers



Roskill Information  
Services Ltd., UK



## **ORGANISING TEAM**

### **Patrons**

- Mr. He Zhihui, President, CHALIECO
- Mr. Kamal Prakash, Director, Unimark International
- Mr. Abjihit Pati, Chief Executive Officer, Aluminium Sector, VEDANTA
- Dr. Biswajit Basu, Dy. CTO, ABSTCPL, Aditya Birla Group & Vice President - IIM
- Dr. Anupam Agnihotri, Director, JNARDDC
- Prof. Indranil Manna, Director IIT-Kanpur & Vice President - IIM

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- Mr. Vinod Sood
- Mr. H Mahadevan
- Dr. Richard Flook (Australia)
- Dr. Nguyen Binh (Vietnam)
- Mr. D P Misra
- Mr. W U Ouyang (China)
- Mr. Yves Ocello (France)

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- Mr. Tony McCabe
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- Mr. R N Goyal
- Ms. Mohini

### **Convener (IBAAS)**

- Dr. Ashok Nandi

### **Co-Convener (IIM)**

- Dr. Vilas Tathavadkar



## Special Technical Sessions of IBAAS-2016 Symposium

Several special technical sessions are planned during IBAAS 2016 symposium and these will be coordinated by leading experts of the field:

### **✚ Special Alumina & Non-Metallurgical Bauxite - Coordinated by Dr. Richard Flook, Australia**

The special alumina segment covers the use of bauxite and alumina to produce products for non-metallurgical markets. These products include refractory and ceramic raw materials, aluminium chemicals, cement raw materials, abrasives, ceramic proppants and flame retardants. Companies like Almax, Alteo, Altec Chemicals, CUMI, HINDALCO, IHS, Roskill and Zili Corporation Ltd, have already confirmed the presentation in this Special Alumina session of IBAAS 2016. Some of the interesting topics of this special session are **High purity alumina**, Non refractory alumina applications with cost effective solutions, Development of Sintered Alumina & Its Application in Ladle Refractory Lining, Premium Alumina Solutions for Modern Steel Making, Prospects for Ceramic Proppant in Gujarat, etc.

### **✚ Bauxite Residue - Coordinated by Mr. Vinod Sood & Mr. Sadguru Kulkarni**

IBAAS is in contact with potential speakers of organisations like CPCB, TERI, HIL, Vedanta, CSIRO/RRL, CHALIECO, NALCO, NML, ADG (Greece), IIT-Mumbai etc. It is intended to cover residue management, value from waste, commercialization of residue neutralisation with CO<sub>2</sub> from Stacks, recovery of Iron from waste, vegetation of abandoned residue disposal ponds etc. Additionally, CPCB and the state pollution control boards may be presenting their findings on the status of bauxite residue in the country.

### **✚ Aluminium Conductors - Coordinated by Dr. Vilas Tathavadkar, Aditya Birla Science and Technology Company Pvt. Ltd (ABSTCPL)**

Conductor is one of the major applications of aluminium. Power transmission technology is going through major change in developing economies. In India, major infrastructure development & Make in India initiatives by Government of India are expected to significantly increase the demand for aluminium conductors. According to Technavio's market research analyst ([http://www.Researchandmarkets.com/research/tn5I5t/global\\_aluminum](http://www.Researchandmarkets.com/research/tn5I5t/global_aluminum)) "Electrical grade aluminium wire rod is the most popular segment and accounted for 58% of the market share during 2014. This segment is expected to reach a market volume of around 2 million metric tons by the end of 2019. Special conductors are anticipated to address the transmission issues within the power grid sector". Considering these important developments, a separate session on Aluminium conductors is arranged which shall cover all aspects of conductor alloys, manufacturing, application, etc. This session will have lecturers delivered by eminent speakers from academia and industry both from India and overseas. We invite members from industries, academic Institutes & research organizations to actively participate in this session to discuss the present technological challenges and way forward to meet the expectations of Indian power industry.



✚ **Aluminium in the Transportation Sector-** *Coordinated by Mr. Shanker Gopalkrishnan, Madras Consultancy Group.*

This session will explore the growth prospects and the developments across the globe. The session will have a focus on the emerging applications, alloy & product developments and the implications for the downstream sector, viz. flat rolled products, castings, extrusions & forgings. The topics planned to be covered are: Aluminium in Automotive - Personal & Commercial Transportation segment (bus, truck trailer, tankers) Aluminium in Rail Transport, Aluminium in Aerospace, Aluminium downstream - flat rolled products, castings, extrusions & forgings. Several national and international speakers have been invited and there is a good response to this session. Some of the organisations that have confirmed their participation in this session are Hindalco, Super Auto Forge and Century NF Castings.

**Important Dates**

**Deadlines for abstract and final manuscript**

- Topic with Abstract in English                      June 30, 2016
- Final manuscript in English                            July 31, 2016
- Presentations in English                                August 31, 2016

For young specialists and students, a special Poster Session will be organized to present poster papers at the venue of symposium.



## Symposium information

The venue for the IBAAS-2016 symposium is Radisson Blu Resort, Goa.  
Contact details:

RADISSON BLU RESORT GOA CAVELOSSIM BEACH



Cavelossim Beach  
South Goa  
India 403731

Tel: +91 832 672 6666  
Fax: +91 832 672 6677  
Email: [reservations@rdresortgoa.com](mailto:reservations@rdresortgoa.com)

## Hotel Tariff

Rooms Type (Superior/Premium)	Special Rate for IBAAS-2016 delegates (Including Breakfast)
Single Occupancy	INR 6500 per room per night*
Double Occupancies	INR 6500 per room per night*
Extra Adult	INR 2500 per room per night*

\*Tax extra as applicable (currently 3.63%)

Please send your accommodation request for IBAAS 2016 symposium to Ms Tammie ([tammie@aamantaran.in](mailto:tammie@aamantaran.in)) and [info@ibaas.info](mailto:info@ibaas.info)

## Other Hotels

Several hotels of varying price ranges are also available near the symposium venue. Details will be provided to the interested delegates. Kindly contact [info@ibaas.info](mailto:info@ibaas.info)

## How to reach

Goa is well connected to many cities including Mumbai, Delhi & Bangalore by Air, Rail and Bus. Several international airlines including some Gulf based Airlines have direct flights to Goa.

## Language

The language of the Symposium is English. Papers will be published in the Proceedings (IBAAS Binder) in English.

## Invitation Letter

If requested by participants, an official invitation letter can be organized by IBAAS.



## Proceedings

Selected papers will be published in the form of PROCEEDINGS, a digital copy of which will be made available on a flash drive during the symposium. All the presentations received before the symposium will be compiled and circulated during the symposium.

## Post symposium visits

A visit to Indian Bauxite Mine & Alumina Refinery has been organized by IBAAS.

Visit to Plant/ Mine	Charges	
	INR	US\$
 <b>Bauxite Mine:</b> Goa Bauxite Mine of Gosalia Group, Goa	1000	20
 <b>Alumina Refinery:</b> Belgaum Alumina Refinery, Karnataka	5000	100

Interested delegates can contact [info@ibaas.info](mailto:info@ibaas.info) for further details and booking as limited seats will be available, particularly for Belgaum tour.

## Symposium fees

### Delegate Fee

Please find below the fees for delegates, paper presenters and student/research scholar. Delegates from India and other countries can pay in USD and INR.

	Participants	Organizational Fee	
		US\$	INR
1.	General Delegates	400	20,000
2.	Paper Presenters	200	10,000
3.	Students/Research scholar	100	5,000
4.	Accompanying Spouse	100	5,000

Delegate fee includes symposium materials, lunch and tea/coffee.



## Sponsorship

By sponsoring this IBAAS-2016 International Event, you will raise your company profile and gain unparalleled access to the key decision makers in this industry. You can choose from various sponsorship packages as shown below:

### Packages of IBAAS 2016 Sponsorship

Packages	Platinum	Gold	Silver	Lunch	Support
Amount - USD	16,000	12,000	8,000	6,000	4,000
Amount - INR	800,000	600,000	400000	300,000	200,000
Presentation in the IBAAS symposium in main hall	20 min	15 min	10 min	-	-
Other Benefits common to all packages	Company name and logo of sponsoring companies on IBAAS webpage with a link, background panel of hall, souvenir, symposium documents, projection during Tea Break				
Advertisement in symposium souvenir	Full page colour	Full page colour	Full page colour	Full page colour	Full page colour
Free Delegates at Symposium	8	5	3	3	2
Chairman of session	One	-	-	-	-
Stall at Exhibition	One standard	One standard	-	-	-



## Exhibition

At the venue of IBAAS symposium, an exhibition is being organized showcasing the developments of aluminium industry in India and world over. Fully furnished aluminium framed stalls of 2mx2m size would be available for interested companies. More than 200 delegates from India and abroad are expected to participate in this International mega event. The tariff for exhibition stall is as follows:

	Exhibition module (2m x 2m size)	Tariff for 3 days symposium	
		US\$	INR
1	1 stall	4000	200,000
2	2 stalls	6000	300,000
3	3 stalls	8000	400,000

\*The exhibitor will get a free delegate registration with each stall booked.

## Advertisements

A Souvenir (booklet) will be brought out during the symposium containing company profiles and advertisements. The tariff is as follows:

Sr. No.	Advertisement in Symposium souvenir	Fee	
		US\$	INR
1	Back Page Cover (Colored)	1800	90,000
2	Front inside Page (Colored)	1200	60,000
3	Back inside Page (Colored)	1000	50,000
4	Full Page (Colored)	800	40,000
5	Half Page (Colored)	500	25,000
6	Black & White (Full Page)	500	25,000



## Mode of Payment and Communication

All the Indian and Foreign companies and delegates can pay the delegate fees, sponsorship, advertisements and exhibition fees in INR to the bank account of IBAAS, India. While making payment, please specify **IBAAS Symposium-2016**.

The details of payment mode in India are as follows:

- ✦ By wire / Internet transfer to International Bauxite, Alumina & Aluminium Society (IBAAS) Current Account No. **2162002100010474** of Punjab National Bank (Bharatnagar branch Nagpur-440001, branch code 2162), SWIFT CODE: PUNBINBBNKW, RTGS/NEFT IFS code : PUNB0216200
- ✦ By multicurrency cheque or demand draft in the name of International Bauxite, Alumina & Aluminium Society (IBAAS) and send it by post to IBAAS, Row House A/5, Rajat Utsav II, Kachimet, Amravati Road, Nagpur 440033, India
- ✦ Receipt of payment will be provided by e-mail upon your request. The Permanent Account Number (PAN) of IBAAS for tax purpose is AAAAI5838B.

### Important Note:

- ✦ *A service tax of 15% would be added in the Sponsorship, Exhibition and Advertisements fees. On confirmation, invoice will be raised by IBAAS office.*
- ✦ *Please confirm your payment by e-mail to [info@ibaas.info](mailto:info@ibaas.info) and contact us for further queries on payments.*

## Contact Information

### IBAAS Office

International Bauxite, Alumina & Aluminium Society (IBAAS), India

Web site: <http://www.ibaas.info/> Office E-mail: [info@ibaas.info](mailto:info@ibaas.info)

### Contact Persons:

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✦ Dr Vilas Tathavadkar  
Cell No.: +91 8108333260  
[Vilas.Tathavadkar@adityabirla.com](mailto:Vilas.Tathavadkar@adityabirla.com)

You are requested to send all materials related to Symposium "IBAAS- 2016", to the e-mail addresses shown above. Your participation in the Symposium will be highly appreciated.

## *Organizing Committee*

**IBAAS - 2016**



# "Aluminium Industry- The Evolving Asia - Pacific Story"

## REGISTRATION FORM

Title-(Prof/Dr/Mr/Mrs/Ms)	
Name of the Participant	
Position	
Name of the Organization/Institute / Company / Industry	

Address			
City		State	
Zip Code		Country	
Email			
Telephone		Mobile No.	

Require Visa Support Letter, Please tick

Yes	No
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Paper Detail (For Authors only)

Paper Title	
-------------	--

Payment Detail

Mode of Payment : Bank Transfer / Cheque / DD / Cash	
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Hotel Accommodation

Require Hotel	Yes	No
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Accommodation Choice, if any:

Post Symposium Mine/Plant Visit, please tick with choice

Yes	No
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Date:

Signature:



## One Day IBAAS-IIM Theme Symposium (September 26, 2016) on Energy Reduction in Aluminium Smelting

### Key Theme

Aluminium metal due to its light weighting and high recyclability potential has a low life cycle cost. However, energy consumption for primary aluminium manufacturing is considerably high accounting for 30 to 40% of production cost. While anticipating encouraging economic conditions and policy decisions from the government, industry realizes the need for a concerted effort with a long term view to address energy challenges in aluminium smelting.

In this regard, The Indian Institute of Metals, JNARDDC and IBAAS, in participation with the three Indian primary aluminium manufacturers - HINDALCO, Vedanta and NALCO, plan to organize a special symposium. The symposium on "Energy Reduction in Aluminium Smelting" would be organized in close participation of industry, academia, research laboratories and professional associations with the following key objectives:

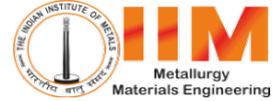
- Share knowledge and deliberate on worldwide initiatives on reduction in specific energy consumption in Al-smelting & evaluate the path forward for Indian industries.
- Create a forum of experts from industry, academia & research laboratories from both India and overseas along with government bodies.
- Set-up collaboration framework including working groups between industry, academia & research institutions to address the industry challenges through exchange, training and R&D/Technology programs

### About the Symposium

Theme symposium will have series of invited lectures by a) industry experts from Hindalco, Vedanta, & Nalco, b) technology suppliers like Rio Tinto Alcan (RTA), GAMI, SGL, c) academic & research scientists from LMRC, IITs, etc. and will cover topics on challenges faced by Indian Aluminium industries, new developments in cell technology, electrode technology, process control & modelling. Some of the key technical topics in the symposium are:

- Breakthrough Technologies for improving potline Energy Consumption, production Efficiency & Flexibility - LMRC
- Development of a low energy aluminium smelting solution for high productivity pots - RTA
- Cathode & Modelling solutions: implementation of low energy consumption electrolysis cell design - SGL & BALCO
- Energy Consumption Technology: Challenges & Opportunities in Aluminium Smelters - JNARDDC

**The contributory papers are also invited from field experts from plants and research institutes for oral and poster presentations in subsequent Al-smelting technology sessions on 27<sup>th</sup> and 28<sup>th</sup> Sept 2016.**



### Theme symposium organisers:



The Indian Institute of Metals is a premier organization representing materials and metallurgical engineers in India. Founded in 1946 by a group of metallurgists led by Dr. D.P. Antia, IIM is the largest professional organization for metallurgist in India with over 8000 members from R&D laboratories, academia and industry. The two main objectives of IIM are: promoting and advancing the science and technology of metals and alloys and protecting the interests of metallurgists and metallurgical industry.



Jawaharlal Nehru Aluminium Research Development and Design Centre, is an autonomous body under ministry of mines, Govt. of India. It is a "center of excellence" set up in 1989 as a joint project by Ministry of Mines, Government of India and United Nations Development programme and fully functional since 1996. It was set up with a vision to create a state of the art research institute for the development of technologies and provide services to both primary and secondary aluminium industries with a special emphasis on environmental sustenance, energy and material conservation.



Hindalco Industries Limited, metals flagship company of the Aditya Birla Group, is the industry leader in aluminium and copper. With a consolidated turnover of US\$17 billion, Hindalco is the world's largest aluminium rolling company and one of Asia's biggest producers of primary aluminium. Its state-of-art copper facility comprises a world-class copper smelter and a fertiliser plant along with a captive jetty. The copper smelter is one of the world's largest custom smelters at a single location.

In India, the company's aluminium units across the country encompass the gamut of operations from bauxite mining, alumina refining, coal mining, captive power plants and aluminium smelting to downstream rolling, extrusions and foils. Today, Hindalco ranks among the global aluminium majors as an integrated producer and a footprint in 13 countries outside India.

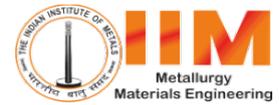
The Birla Copper unit produces copper cathodes and continuous cast copper rods, along with other by-products, including gold, silver, and DAP fertilisers. It is also India's largest private producer of gold.

Hindalco has been accorded Star Trading House status in India. Its aluminium is accepted for delivery under the High Grade Aluminium Contract on the London Metal Exchange (LME), while its copper quality is also registered on the LME with Grade A accreditation.



National Aluminium Company Limited (NALCO) is a Navratna CPSE under Ministry of Mines, Govt. of India. It was established on 7th January, 1981, with its registered office at Bhubaneswar.

The company has a 68.25 lakh TPA Bauxite Mine & 22.75 lakh TPA Alumina Refinery located at Damanjodi in Koraput dist. of Odisha, and 4.60 lakh TPA Aluminium Smelter & 1200 MW Captive Power Plant located at Angul, Odisha. As per diversification plan, NALCO has ventured into renewable energy sectors. The Company has successfully commissioned two wind power plants. A 50.4 MW wind power plant at Gandikota, Andhra Pradesh and another of 47.6 MW wind power plant at Jaisalmer, Rajasthan are operational since December, 2012 and January, 2014 respectively. 260 KWp Rooftop Solar Power System has been made operational at Office and Township, Bhubaneswar during FY 2014-15. NALCO has bulk shipment facilities at Vizag port for export of Alumina/Aluminium and import of caustic soda and also utilises facilities of Kolkata and Paradeep ports. The company has its regional marketing offices in Delhi, Kolkata, Mumbai & Chennai its branch offices at Bangalore, Paradeep, Ahmedabad and its 11 stockyards at various locations in the



country. NALCO is the first Company in Aluminium sector in the Country to venture into International market in a big way with London Metal Exchange (LME) registration since May, 1989. In its efforts for capacity addition and expansion, NALCO has extensive plans for brown field and green field expansion projects. The company has products line such as: calcined alumina, alumina hydrate, specialty aluminas. Aluminium ingot, wire rod, billets and rolled products etc.



**Vedanta Limited** is India's only global diversified natural resources company, with low cost operations, producing oil & gas, zinc, lead, silver, copper, iron ore, aluminium and commercial power. The company is listed on the Bombay Stock Exchange and the National Stock Exchange in India and has ADRs listed on the New York Stock Exchange. It is a subsidiary of London listed diversified resources company Vedanta Resources Plc. We empower our people to drive excellence and innovation to create value for our stakeholders. We demonstrate world-class standards of governance, safety, sustainability and social responsibility. We are a leading producer of metallurgical grade alumina and other aluminium products, which cater to a wide spectrum of industries. The Aluminium Business of Vedanta has carved a niche for itself in the aluminium industry with its superior product quality based on energy efficient state-of-the-art technology. Vedanta has installed smelting capacity of 2.32 MTPA in the state of Odisha and Chhattisgarh supported by captive power generation and highly modern infrastructure. Our units are poised for enhancing capacity utilisation and up-gradation of energy efficiency technology. Vedanta diverse portfolio caters to the Automobile, Building and Construction, Electrification, Packaging sectors.



**The Aditya Birla Science and Technology Company Private Limited (ABSTCPL)** is the global corporate research and development hub for the Aditya Birla Group's diverse businesses. We undertake R & D projects to commercialise technologies for the Group's businesses in collaboration with its technology, production and marketing divisions. We also offer contract research, analytical services, process engineering and scale-up facilities for entities outside the Group.