



15<sup>TH</sup> & 16<sup>TH</sup> DECEMBER, 2015 BHARAT DIAMOND BOURSE, MUMBAI

# ALL YOU NEED TO KNOW ABOUT DIAMOND DETECTION UNDER ONE ROOF.

Discover different types of equipment, machinery and laboratories to identify Synthetic Diamonds.

In the recent past, there have been many instances where buyers thought that they were purchasing Natural Diamonds, but what they actually were buying were Synthetic Diamonds.

Since many such cases were being brought to the notice of the GJEPC, it was critical to take the responsibility to study the issue of undisclosed mixing of the natural and synthetic diamonds in more detail and then outlining any actions that may be required to address. Keeping this in mind, the Natural Diamond Monitoring Committee (NDMC) was formed at GJEPC, consisting of representatives from the GJEPC, BDB, GJF, GIA and other trade bodies from the Gems & Jewellery sector.

To keep sellers as well as buyers abreast about the knowledge and in-depth information on synthetic diamonds and its detection through various technologies, GJEPC in association with Bharat Diamond Bourse (BDB) is organizing the Diamond Detection Expo & Symposium (DDES 2015) on 15th and 16th December 2015, between 10:00am and 6:00pm.

Exhibitors	Overview
DRC Perfection Implemented	DRC TECHNO is one of the Leading Manufacturing Company, producing High Performance Machinery for Diamond Industry that could assist in Diamond Production, Process & Evaluation with High Accuracy. DRC Techno has recently launched D-SECURE Machine, that identifies Real Diamond from Lab Grown Diamonds, even if the stone is Rough, Finished (Polished) or in studded ornaments
GIA GIA	As a part of GIA's mission to ensure public trust in the Gem and Jewellery industry, it will conduct a series of seminars on "Synthetic Diamonds" there by creating awareness on the same. GIA will also display and demonstrate the Diamond Check machine at the show
GESI Gemological Science	At DDES, GSI will address various issues with regards to synthetic diamonds and their identification. GSI will be an eye-opener to the participants by giving an opportunity to the traders to get more ground level information on the difference between inclusions in natural vs synthetic diamonds and many more
HRDAntwerp	"HRD Antwerp will demonstrate its state-of-the-art diamond screening devices. Visitors will be able to discover the D-Screen, a portable diamond screening device, The Alpha Diamond Analyzer, designed to perform reliable diamond detection and type screening and the recently launched M- Screen, the world's fastest automated Melee screening device. www.hrdantwerp.com"
ACCURACY • KNOWLEDGE • EXPERTISE Part of The De Beers Group of Companies	The International Institute of Diamond Grading & Research (IIDGR) has been established by The De Beers Group of Companies to provide a premium diamond grading service and proprietary equipment to the diamond industry. Based in the UK, Belgium and India, and run by the world's top diamond experts, IIDGR offers a range of expert services.



## ENTRY ONLY BY PRE-REGISTRATION

To download the seminar registration form visit www.gjepc.org/ddes.php

## KNOWLEDGE SEMINARS & WORKSHOPS

In addition to the wide array of latest equipment and tools exhibited to detect the synthetic Diamonds, the 2 day Expo will also feature Expert talks and Panel Discussions. Renowned Panelists from the trade include Dr. Philip Martineau, IIDGR; Mr. Tom Moses, GIA; Jean Pierre Chalain, Deputy Director Swiss Gemmological Institute SSEF; Praveenshankar Pandya Chairman, GJEPC; Anoop Mehta President - Bharat Diamond Bourse, and others. A talk on Comparison between Natural and Man-Made Diamonds by Ms. Vidhya Mazumdar, Head of Education at GSI, ASDI Automated Spectral Diamond Inspection: A solution for the industry to analyze and authenticate colourless melée diamonds at high speed by Jean-Pierre Chalain and Screening and Detection of Lab Grown Diamonds by Ellen Barrie, Research Scientist at HRD Antwerp will also be a part of the Seminars. So save your date as this will offer you everything that you wanted to know all about Diamond Detection under one roof.



**Knowledge Partner** 



, INTERNATIONAL GEMOLOGICAL INSTITUTE We at IGI are equipped with state of art equipment like the Fournier Nicolet Infrared Spectrometer, Raman Spectrophotometer, DiamondSure<sup>™</sup> and DiamondView<sup>™</sup>. Our studies and research have shown that synthetic diamonds possess unique photoluminescence properties which are different from natural diamonds and we therefore utilize proprietary equipments to study the same. We have competent scientists who are trained to use these instruments to analyze the chemical and optical features of diamonds which enables us to accurately identify Natural Diamonds. As a developed laboratory we are also accredited with NABL ISO/IEC 17025:2005.



Launched in April 2015, IDI-DDRC at Katargam Campus is providing an awareness as well as facilities of quick detection of Synthetic Diamonds vide Screening & RFT services. The participation in DDES-2015, Mumbai, is aimed towards boosting up the confidence and morale of the trade by spreading the knowledge and information about the Synthetic Diamonds and informing about the screening & detection technologies, available as on day, in world and used by IDI-DDRC to aid in the identifications within shortest turnaround time.



We Bruker Optik GmbH are the manufacturers of FTIR, FT-NIR and Raman spectrometers having manufacturing facility in Ettlingen, Germany and worldwide offices. We have developed specially three models ALPHA Diamond Analyser, Tensor-II with HTS-XT and Lumos FT-IR microscope for the characterisation and screening of different types of Diamonds. Our ready to use software with these instruments helps users to differentiate the diamonds into different Types. We have a team of application specialist who are trained to use these instruments and interpret the FTIR spectral features of different types of Diamonds having presence of Nitrogen and Boron peaks. On the basis of this, different types of Diamonds are interpreted and displayed using our Software.



At DDES, the Gemmological Institute of India (GII), will show case all its activities including teaching and testing of Colored Gemstones & diamonds.

It will also conduct six brief sessions (15 minutes) per day on instrumental methods of detecting Lab-Grown diamonds.



## 11:00 am to 01:00 pm





#### **PRANAY NARVEKAR**

Pranay Narvekar, partner at the management consulting company Pharos Beam Consulting LLP, has emerged as a leading expert on many of the crucial strategic, financial and structural problems facing the diamond industry pipeline. His experience covers Strategy Development and Business Planning, Retail Supply Chain, Information Technology, Program Management for large roll-outs, etc. He wii be managing the MyKYCbank project for GJEPC.



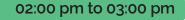
### DETECTION OF SYNTHETIC DIAMONDS : THE CURRENT SITUATION **DR. PHILIP MARTINEAU, IIDGR**

Philip Martineau is Senior Manager Physics at De Beers Technologies UK. He earned a D. Phil. in solid state physics from Oxford University and joined De Beers in 1990 after periods of research at the Universities of Chicago and Cambridge For many years he has been heavily involved in a research programme focused on providing knowledge and instruments to allow synthetic diamond and treated diamonds to be identified and clearly distinguished from natural untreated diamonds.



#### **ADVANCES IN CVD TECHNOLOGY &** ASSOCIATED CHALLENGES FOR DETECTION WUYI WANG - DIRECTOR OF RESEARCH & DEVELOPMENT, GIA

Dr. Wuyi Wang is director of Research and Development in the Gemological Institute of America. He holds a Ph.D. in mineralogy, experimental petrology, and geochemistry from the University of Tsukuba in Japan. Dr. Wang is widely published in gemological and geological magazines; he has been recognized with numerous awards and honors.





#### COMPARISON BETWEEN NATURAL AND MAN-MADE DIAMONDS **SEEMA ASHISH ATHAVALE -**CHIEF GEMOLOGIST, GSI

With over a decade of experience in the diamond, pearl and gemstone industry, Seema has acquired an extensive technical understanding of the field. Her vast and relevant qualifications have enhanced her knowledge on various fields, ranging from study on Pearl, Diamond Grading, and Techniques in Marine Water Pearl Culture to Gemstone courses from India and overseas. At GSI, Seema is mainly responsible for the research, growth and also identifies new business avenues for the business.

## 03:30 pm to 04:30 pm



#### ASDI AUTOMATED SPECTRAL DIAMOND INSPECTION: A SOLUTION FOR THE INDUSTRY TO ANALYSE AND AUTHEN TICATE COLOURLESS MELÉE DIAMONDS AT HIGH SPEED JEAN-PIERRE CHALAIN, SSEF

Jean-Pierre Chalain joined the Swiss Gemmological Institute SSEF in 1994 and is currently deputy director of the Institute and director of its diamond department. Jean-Pierre Chalain is also the project manager and head of development ASDI-Automated Spectral Diamond Inspection - at SATTGEMS, a subsidiary of SSEF that develops and sells the ASDI machine for authenticating large quantities of melee-sized diamonds at high speed and low cost.

## Seminar Schedule - Wednesday, 16th December, 2015

## 10:30 am to 01:00 pm

## **PANEL DISCUSSION : SYNTHETIC DIAMONDS - IMPLICATIONS FOR THE INDUSTRY**



### **NILESH HUNDEKARI**

Neelesh is a Partner with A. T. Kearney, India and leads the Gems and Jewellery practice globally and the specialty retail practice in Asia. He is a global expert in the Gems and Jewellery, Luxury and Lifestyle industries and has advised large corporations and industry bodies across the world on strategic and transformational issues. He has a very deep understanding of the global value chain in these industries and has authored several prestigious studies of the gems and jewellery, luxury and lifestyle industries along with industry bodies such as GJEPC, CII and FICCI. He sits on the CII Core Committee on Luxury and Lifestyle and the CII National Committee on Textiles.



## **RUSSELL MEHTA - VICE CHAIRMAN, GJEPC**

With more than 30 years of experience in the diamond industry, Mr. Russell Mehta transformed a family run business into a professionally managed organization. Russell has extensive experience in various areas of business management at local and International levels - from strategic planning to tactical execution. Currently he is the Managing Director of Rosy Blue (India) Pvt. Ltd. and responsible for all Rosy Blue group companies in India.



## ASHISH MEHTA – CONVENER NDMC, GJEPC

Ashish K. Mehta is a partner of M/s. Kantilal Chhotalal, one of the leading players in Diamond and Jewellery industry. Educated in Mumbai and the US, Ashish has been associated with several trade bodies in India. He is the Convener of the recently formed Natural Diamonds Monitoring Committee, set up by GJEPC in association with other trade bodies such as Bharat Diamond Bourse, The Gem and Jewellery Federation and Mumbai Diamond Merchants Association. Ashish has been a speaker at various forums, including Financial Times conference in London and the 1st and the 3rd Mines to Markets conference in Mumbai



#### C K VENKATARAMAN - CEO JEWELLERY, TITAN COMPANY LIMITED

After working in the advertising industry for 5 years, Venkat joined Titan in 1990. For the next 15 years, he held various responsibilities in marketing and sales in the Watches division of Titan. In 2005, he moved over to head the Jewellery division of Titan. Venkataraman holds a postgraduate diploma in management from the Indian Institute of Management, Ahmedabad.





Moses earned his Graduate Gemologist (GG) diploma at GIA's West Los Angeles



#### **COLOURED DIAMOND DETECTION & IDENTIFICATION** OF LAB GROWN DIAMONDS **DR. THOMAS HAINSCHWANG, GGTL**

**TESTING OF MELEE SIZES & LARGE THROUGHPUT** 

Dr. Thomas Hainschwang is managing director and researcher at the Liechtenstein branch of GGTL Laboratories in Balzers/Liechtenstein. Dr. Hainschwang has developed and built many analytical instruments. His most recent invention is the so-called DFI fluorescence imaging and spectroscopy system which is used to screen parcels of melee diamonds for synthetic and also treated diamonds

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# melee-sized diamonds at high speed and low cost.

05:00 pm to 06:00 pm



**JEAN-PIERRE CHALAIN, SSEF** 

#### **INFRA-RED SPECTROSCOPY – PERFECT** TOOL FOR DIAMOND CLASSIFICATION FROM MELEE TO MM DIMENSIONS **KAUSHAL SHARMA**

## **REGIONAL MANAGER, BRUKER OPTIK**

Kaushal Sharma has more than 18 years of experience in Analytical Instrument field. He has a vast experience Molecular Spectroscopy field consisting of Infra-Red, Raman and NIR spectroscopy. He has further worked extensively in the field of Diamond applications using Infra-red spectroscopy. His skills to interpret the classification of Diamonds based on IR spectrum benefits the users to understand Infra-red Technology in an easy way.







campus in 1976 and began work at the GIA Laboratory in Santa Monica in 1977 In November 2002, Moses received the Richard T. Liddicoat Award for Distinguished Achievement, the Institute's highest honor. Mr. Moses has headed some of GIA's most critical identification and research projects and co-authored many articles for the Institute's award-winning journal, Gems & Gemology. In October 2005, Mr. Moses was named Senior Vice President of the GIA Laboratory and Research.



#### ANOOP MEHTA - PRESIDENT, BHARAT DIAMOND BOURSE

After entering the family run business at a young age, Mr. Mehta has been actively involved in promoting and developing the diamond industry for more than 30 years. As President of the BDB, a non-profit making company providing world class facilities to the diamond trade in India, a post he has held since 2003, Mr. Mehta has been actively involved in the strategic planning and development of the project. Mr. Mehta has also been associated with The Gem & Jewellery Export Promotion Council for many years and is on the committee of the Diamond Exporters Association Limited (DEAL).

## 01:30 pm to 02:30 pm



#### SCREENING AND DETECTION OF LAB GROWN DIAMONDS **ELLEN BARRIE, HRD ANTWERP**

After graduating with a Master of Science degree in Geology, Ellen Barrie started working as a research scientist at HRD Antwerp. During her studies, she developed a large interest in the fascinating world of gemstones. Nowadays she works on the characterisation and detection of lab-grown and colour treated diamonds. The title of her talk will be: Screening and detection of labgrown diamonds

## 03:00 pm to 04:00 pm

### ADVANCEMENTS IN DIAMOND TREATMENT



Thomas M. Moses **Executive Vice President** and Chief Laboratory and Research Officer, GIA



WUYI WANG Director of Research & Development, GIA