Facilities Introduction

施設紹介

HORIBA Technical Centers at Premier Institutes in India インドの高等研究機関にあるHORIBAテクニカルセンター

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Dr. H.C. SUDEEKSHA H.C. スディークシャ High-end instruments are indispensable tools in modern-day, cutting-edge research. While they are expected to add high value to the advanced research work, the understanding of potential of these sophisticated instruments for multiple applications plays a vital role in their wider usage. In a growing market like India, creating an effective awareness of such advanced equipment is the need of the hour to enhance HORIBA sales. In this direction, HORIBA India (HIN) Scientific had analysed the market situation to understand the existing distributor-driven sales picture and had realized that it was essential to create a suitable HORIBA-Academics-Industry platform to facilitate regular promotional activities to drive sales of all scientific products to both academic and industrial markets.

Key words

research lab, analytical facility, HORIBA-IISc, HORIBA-IIT Delhi

現代の最先端研究において、ハイエンドの分析機器は欠くことのできないツール である。それらは、高度な研究開発に高い付加価値を与えることが期待されるが、 そのためには、これらの高性能な分析機器が持つさまざまな用途への可能性を理 解することが、その普及に重要な役割を果たす。インドのような成長市場では、お 客様が分析機器の先進的かつ実効性の高い価値を感じていただくことが、販売 拡大のために必要である。HORIBAインド(HIN)の科学セグメントでは市況を分析 調査しており、インドにおける今後のビジネスには、効果的な産学連携プラット フォームの構築が重要なファクターであると認識している。

キーワード 研究所, 分析機器, HORIBA-IISc連携, HORIBA-IIT Delhi連携

Introduction

The Indian analytical market analysis and customer voice indicated us a different way of branding by partnering with a few premier institutes in India that had their brand significance in both academic and industrial domains. The Indian Institute of Science (IISc) located in Bangalore emerged as our preferred institute because of various aspects of branding it would bring to HORIBA: IISc is the top-most influential academy of India that was initially started by Jamsetji TATA before it was handed over to the central government of India for making it a highly funded, rank-1 institute of India that attained global importance. Prof. C.V. Raman served as the first Indian director of this institute. With a timely support and guidance of Prof. Siva Umapathy, the well-known Raman spectroscopist from this institute, HORIBA India (HIN) could sign an MoU with IISc for setting up the HORIBA-IISc Technical Center (HITC) in 2018. The HITC was inaugurated by Dr. Jai Hakhu, Prof. S Umapathy, Prof. S Ramakrishnan, Dr. Rajeev Gautam, and Prof. G Mugesh (from R to L), followed by a grand customer connect (Figure 1).

Notably, it was the first-ever step taken by HORIBA in India to start a technical platform, with its own Application Scientists, for running a customer-outreach program to strengthen the direct marketing in India and SAARC (HIN secured a global HORIBA BlackJack award for this idea in 2019).



Figure 1 Indian Institute of Science, India's topmost research institute and a glimpse of the inaugural ceremony of the HITC.





Figure 2 A view of the present HITC.

HITC strengthens the Industry-Academy relationship:

HITC is a state-of-the-art applications lab comprising LabRAM HR Evolution, Duetta, DeltaPro, and SZ-100 instruments, with the possibility of further expansion with other equipment for demonstration (Figure 2). In phase II, we are planning to showcase Aqualog, AFM-Raman, veterinary products, and Smart-Assay kits.

IISc scholars get free access to this analytical center and a chance to work with HORIBA scientists for their collaborative research. Through HITC, HORIBA gets the advantages of free access to all online literature, library, world-class faculty interaction and guidance. Our collaboration with Ph.D. and postdocs will create future potential customers. We are running various industrial projects to help sales of high-end techniques such as Raman, ViewSizer and Fluorescence. As IISc has several HORIBA customers on its campus, HIN can showcase various other HORIBA techniques that are procured by IISc to prospective customers. Various industrial visitors at HITC get an opportunity to interact with both HIN Scientists as well as IISc faculty and HORIBA gets good chances for impressing these customers through faculty testimony and recommendation.

Welfare to the HORIBA group:

Since its inception, the HITC has been catering to the needs of potential academic and industrial customers from both India and SAARC countries. The center is used for HIN internal team training, COE interactions, distributor training, and marcom materials creation (application notes/publications). Excited by the successful operation of this much-needed Industry-Academy platform, the present director of IISc has happily allotted a bigger space for HITC in the Chemical Sciences Block that is ideally located adjacent to the nanoscience center, the physical science block, the biological science block, and the aero science block. This gives us ample opportunities for bringing multiple researchers to the HORIBA community. We already started witnessing the results in terms of various collaborations with the faculty of IISc (who chair various purchase committees in India) to boost cross-segment activities as well.

World-class scientists and researchers from academia and industry frequently visit IISc, so it is much easier for us to invite them to HITC to discuss their active research problems and the new technology or solutions they are looking for. Customer feedback on our products and service received during these interactions will strengthen our technical capabilities and customer engagement programs. Various research scholars are being trained by our Applications Scientists Dr. John Kiran Anthony and Dr. H. C. Sudeeksha to regularly



Figure 3 Raman images of finished tablets showing distribution of API (green) and excipients (colors) (a) and polymorphs of API polymorphs (red and blue) (b).

Expansion and Way forward:

The presence of HITC in Bangalore has attracted customers from most parts of India, yet it is a bit distant for customers from North part of India. Encouraged by the success of HITC Bangalore, we have now signed an MOU with the Indian Institute of Technology (IIT) Delhi which is a prominent and influential technological institute located in Delhi (Figure 5). This center is currently hosting our LA-960V2 supervised by Application Scientist, Dr. Namrata Jain, who is offering hands-on trainings to potential customers and academic researchers. The center will soon be expanded as a technical hub for Scientific, Optical Smart Sensing, and Process and Environment divisions in the new campus of IIT D Sonipat.

HIN has witnessed several advantages of creating technical centers at these premier institutes in India. We plan to actively carry out our branding activities to enhance our use all available instruments for their research work and to acknowledge HITC in their publications. Multiple projects in Raman, PCA and Fluorescence spectroscopy have been handled for pharmaceuticals, food, and battery industries. All potential customers are regularly invited for a demonstration at HITC, and this has served as a key factor in winning sales against our competitors! The customers see this joint venture between HORIBA and IISc as a confident technical platform, so that they consider HORIBA as their preferred partner. As a result, we see that many Contract Research Organizations (CROs) and 3rd Party Testing Labs have already started purchasing HORIBA equipment for their research and analysis work. This will open a potential market in pharma, biopharma, food, chemicals, metals, and cement in India for HORIBA products.



Figure 4 Polymorphs of API (blue, red, green) in skin cream (a) and distribution of fused graphene with silicon (red) graphene (blue) and silicon (green) on an electrode surface (b).



Figure 5 The MOU signing ceremony for HORIBA-IIT Delhi Technical Center.

market share and to create new domains of the market for the latest technologies of HORIBA.

* Editorial note: This content in based on HORIBA's investigation at the year of issue unless otherwise stated.



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