Tech Skill Transfer Course at AIOC 2026, Jaipur

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Introduction

Tech Skill Transfer Course (TSTC) is a unique wet-lab of AIOC that has been updating the delegates regarding all the technological advancements in the field of ophthalmology and hospital management to enable the ophthalmologists to be ready for the new-age world. The upcoming AIOC 2026 will feature a revamped course list for TSTC to cater to the recent developments that are happening all across the globe and bring it to you at ease. The courses are:

1. The Technology Behind Newer IOLs
2. Recording and Editing Award Winning Videos
3. Conceptualizing and Prototyping Your Innovations
4. Nuts and Bolts of Anterior Segment Imaging
5. Nuts and Bolts of Smartphone Fundus Imagining
6. Imagining ROP
7. AI-Based Screening of Eye Diseases
8. Virtual Auto-Perimetry
9. Toric Markings for IOL: Traditional to Digital
10. Digital Ecosystem for New Age Hospital
11. Digital Therapies for Paediatric and Adult Amblyopia
12. NABH Accreditation- How and Why?
13. OT designing- Infrastructure and Equipment
14. Financial Planning for a Hospital
15. Dry Eye Clinic: Diagnostics, Pharmaceuticals and Therapeutics
16. Ethical Utilisation of Technology in Research and Manuscript Preparation
17. Delivering a Killer Presentation: Effective Utilization of PowerPoint and Beyond

The Technology Beyond Newer IOLs

The optical engineering of the Intraocular Lenses has evolved rapidly over last decade leading the market to be flooded with terminologies such as multifocals, trifocals, EDoF, advanced monofocals, enhanced monfocals, CRV and many more. This lecture-based course will feature a 45-minute didactic lecture from an experienced Phacorefractive surgeon followed by 30 minutes of Q&A session and a 30-minute session with Industry Experts detailing the IOL of interest.

Recording and Editing Award Winning Videos

In the current age of easily accessible high quality recording systems, there is no reason for you not to learn the art of recording and editing your videos. Nicely record and edited videos provides opportunity to review your own work and improve your skills, and also can be utilized to provide information and knowledge to fellow ophthalmologists and general public. The editing video software are varied but have similar workflow. This session will feature a 45-minute live tutorial on recording and editing videos on commonly used software (Clipchamp/Wondershare Filmora/iMovies/Final Cut Pro). Delegates will be required to choose from the slots (via personal communication to conveners) based on their preferred software: Windows (Clipchamp/Wondershare Filmora) or iOS/Mac (iMovies/Final Cut Pro). Following the tutorial, there will be a 30-minute Q&A session.

Conceptualizing and Prototyping Your Innovations

There has been a welcome surge of frugal innovations happening in ophthalmology in the past decade. There though also have been surge in number of ophthalmologists who have got an innovative idea but are not able to give them a physical form or utility. This course will feature seasoned innovators who will give a 45-minutes interactive lecture on how to conceptualize an innovation and take it forward, followed by a 30-minutes Q&A session. The course will also feature a 3-D printer and engineer who will demonstrate the basics of 3-D printing to enable the delegates to rapidly prototype their innovative ideas. Please note that 3-D printing is a time-consuming process and hence it won't be possible to prototype all the innovations that are discussed during the course. One or two prototypes will be designed and printed for tutorial purposes.

Nuts and Bolts of Anterior Segment Imaging

While high-end imaging systems provide an exceptional level of documentation, the rapidly advancing camera modules on your own smartphone can give them a run for money if utilised properly. The course will feature experienced ophthalmologists using their smartphone to take unaided and slit-lamp aided images of anterior segment. The 90-miutes

demonstration will also include a hands-on training of the delegates to image a dummy eye both unaided and with slit-lamp. Delegates can discuss with the conveners in February/March about necessity of bringing any attachments that they might want training.

Nuts and Bolts of Smartphone Fundus Imaging

Traditional fundus cameras are bulky, expensive and hence have limited adoption. The rapidly advancing camera modules on your own smartphone can provide you with exceptional quality images with advantage of it being cheap, frugal, portable and dynamic imaging. The course will feature experienced ophthalmologists using their smartphone and imaging attachment to take unaided and attachment-based images of retina. The 90-miutes demonstration will also include a hands-on training of the delegates to image a dummy eye both unaided and with attachments. Delegates can discuss with the conveners in February/March about necessity of bringing any attachments that they might want training.

Imaging ROP

Retinopathy of prematurity is a growing concern both because of increase in number of surviving pre-term deliveries and its medico-legal impact. Understanding the nuances of imaging ROP will enable the delegates not only to pick up changes that might go unnoticed due to the inherent difficulties of neonatal ocular examination but also to document your findings in order to safeguard from any medico-legal hassles. The 90-minutes demonstration with ROP experts and Industry personnel will include hands-on training on dummy eye to image the retinal periphery to mimic the zones of retina.

AI-based screening of eye diseases

Artificial intelligence has created a storm in almost every aspect of technological advancement by widespread availability of neural processing unit (NPU) which makes any device capable of ultra-fast computing, thus making the AI-based applications native to the device. Coupled with open-source AI algorithms, there are now multiple image classifiers helping instant provisional diagnosis of various diseases. Multiple hand-held devices leveraging this technology has enabled minimally trained grassroot level workers to image the eye and pick-up the patients that may require referral to the base hospital for further evaluation and management. These include Diabetic Retinopathy, ARMD and Glaucoma screening on forefront. This course will feature the leading industry partners and subject experts to demonstrate the devices as well as their utility. It will also include a Q&A session with the experts.

Virtual Auto-perimetry

Perimetry is the gold-standard for diagnosis of Glaucoma and monitoring its progression. Traditional automated perimeters are bulky and expensive. The virtual reality goggles have made it easy to recreate an expansive field of view and depth of view in a very small form factor. These devices are relatively less expensive and highly portable making it a very useful too for glaucoma screening in reach-out camps. The 90-minutes course will feature the commercially available Virtual Auto-Perimeters for both demonstration and hands-on (delegates can try on themselves) along with discussion with industry persons and subject matter experts.

Toric Markings for IOL: Traditional to Digital

Toric marking is one of the most elusive skills for phacoemulsification surgeons as there are many variables involved, but the marking for toric IOL alignment is considered one of the most important skills in the successful outcome. In the last decade, the traditional marking has been slowly being given a competition from the new-age digital marker-less systems. The 60 minutes course will contain a video-based skill transfer lecture for 20 minutes followed by a hands-on feel of the digital system (without any toric IOL implantation) and a 15-minute discussion with the trainers.

Digital Ecosystem for New Age Hospital

With the technological advancements and ease of use, the electronic record keeping system has made the working of hospital easier. The companies with multiple advanced products have also created a cross-communication platform where the data acquired by the machines such as OCT, Biometry etc can be collated and presented to a display terminal at physician's desk. The electronic medical record system (EMR) also has evolved to incorporate all the administrative work and book-keeping, thus making an entire digital hospital a possibility. This course will provide the delegates a 30-minute lecture on the Pros and Cons of creating such an ecosystem followed by a 30-minute discussion with Industry representatives and trainers.

Digital Therapies for Paediatric and Adult Amblyopia

Amblyopia therapy has traditionally been based on penalising the fellow eye by physical or pharmacological agents. In the last few years there has been advent of digital therapies for amblyopia which also is proving beneficial in adult cases creating a new window of hope. This 90-minute discussion-based course will detail about the mechanism of these therapies and will have a live demonstration of the therapy which can be experienced by the delegates.

NABH Accreditation- How and Why?

Achieving NABH accreditation for an ophthalmology hospital is a testament to quality and patient safety. This accreditation ensures adherence to rigorous standards in healthcare, enhancing patient trust and institutional reputation. The process involves comprehensive documentation, training, and implementation of best practices in clinical and administrative procedures. Additionally, NABH accreditation fosters a structured framework for quality management, compliance with national and international benchmarks, and boosts staff morale through recognition of their commitment to excellence. This 90-minute course will feature a 30-minute lecture followed by 60-minute discussion with the experts who have helped many eye hospitals achieve the NABH accreditation.

OT designing- Infrastructure and Equipment

Good OT (Operation Theatre) design is crucial in an eye hospital to ensure optimal surgical outcomes and patient safety. A well-designed OT enhances workflow efficiency, minimizes infection risks, and ensures a sterile environment. It integrates advanced technology and ergonomic layouts to facilitate precise ophthalmic procedures. Learning the art of OT design is essential for healthcare professionals to understand spatial planning, ventilation, lighting, and equipment placement. Mastery in OT design leads to improved surgical performance, reduced complications, and increased patient satisfaction. Ultimately, it fosters a safe and effective surgical environment, pivotal for maintaining high standards in ophthalmic care. This 90-minute course will feature a 30-minute lecture followed by 60-minute discussion with the experts who have practical experience in designing a good OT Complex.

Financial Planning for a Hospital

Good financial planning is vital for the success and sustainability of an eye hospital. It ensures the efficient allocation of resources, enabling the hospital to provide high-quality care while maintaining profitability. Effective financial planning involves budgeting, cost management, and revenue forecasting, which help in making informed decisions about investments in advanced technologies, staff training, and infrastructure improvements. Learning the art of financial planning equips hospital administrators with the skills to optimize operations, manage risks, and achieve long-term financial health. Ultimately, it supports the hospital's mission to deliver excellent patient care and fosters growth in a competitive healthcare environment. This 90-minute course will feature a 30-minute lecture followed by 60-minute discussion with the experts who have been managing large-volume high-capacity centres.

Dry Eye Clinic: Diagnostics, Pharmaceuticals and Therapeutics

Having a dedicated dry eye clinic in your eye hospital is crucial for addressing the growing prevalence of dry eye disease. This specialized clinic allows for comprehensive

evaluation, diagnosis, and personalized treatment plans tailored to each patient's needs. It enhances patient care by providing focused attention and advanced therapies, and thus the clinic contributes to overall eye health and enhances the hospital's reputation for specialized care. This 90-minute course will feature a 20-minute lecture on basics of dry eyes followed by a 40-minute hands-on experience on dry eye therapies followed by 30-minute discussion with trainers and industry experts.

Ethical Utilisation of Technology in Research and Manuscript Preparation

The ethical utilization of technology in research and manuscript preparation is paramount to maintaining scientific integrity and credibility. It ensures accuracy in data collection, analysis, and reporting, preventing issues like plagiarism, data fabrication, and misrepresentation. Ethical practices promote transparency, reproducibility, and trust in research findings. Technology, when used responsibly, enhances the efficiency of literature reviews, data management, and manuscript writing, leading to high-quality publications. Adhering to ethical guidelines also safeguards the rights of study participants and respects intellectual property. Ultimately, ethical utilization of technology upholds the standards of scholarly work, fostering progress and innovation in the scientific community. This 90-minute discussion-based course will nuance of using Artificial Intelligence and Technology in research and manuscript preparation in an ethical manner.

Delivering a Killer Presentation: Effective Utilization of PowerPoint and Beyond

This is a comprehensive course designed to elevate your presentation skills. This course covers the essentials of crafting impactful PowerPoint slides, from design principles and visual storytelling to advanced features and animations. It goes beyond the basics, exploring techniques to engage your audience, manage stage presence, and deliver with confidence. Participants will learn to tailor their content to different audiences, use multimedia elements effectively, and handle Q&A sessions proficiently. By the end of this 90 minutes discussion-based course, attendees will possess the tools and knowledge to create and deliver compelling presentations that leave a lasting impression.