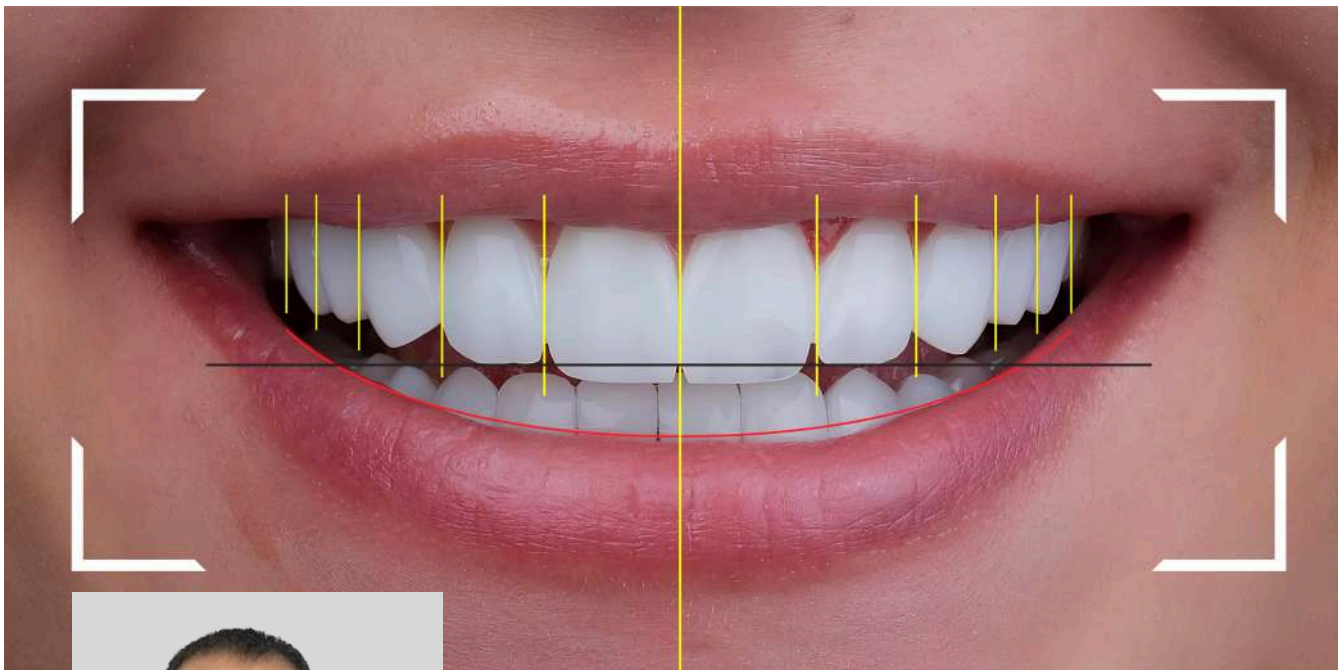


# From Scan to Smile

Delivering high-end chairside esthetic restoration in 1 hour using Digital and Artificial Intelligence Workflow



## Prof. Hatem El-Damanhoury

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CAD/CAM Certified Trainer - International Society of Computerized Dentistry  
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**2025**

Saturday, Sept. 20



**DUBAI**

Total Core Academy

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## Abstract:

In the rapidly evolving field of dentistry, the integration of digital technologies is transforming the planning, execution, and delivery of aesthetic restorations. The course titled "Digitally Driven Aesthetics: Mastering the Complete Digital Workflow" aims to equip dental professionals with the necessary skills to keep pace with these advancements.

Participants will explore the intricacies of digital workflows, beginning with digitally driven preparation for indirect aesthetic restorations that enhance precision and aesthetics. Key techniques covered will include Immediate Dentine Sealing (IDS) and effective bonding strategies that contribute to greater restoration longevity.

The course will delve into AquaCare, an innovative tool that supports minimally invasive treatment options while optimizing clinical workflows through digital intraoral scanning. A major focus will be on the application of artificial intelligence (AI) in digital dentistry, highlighting how AI-powered software like Dentscape revolutionizes the restorative design process. This technology allows for personalized treatment by analyzing patient data and predicting clinical outcomes, ultimately improving patient care.

Led by Prof. Hatem, the course features step-by-step demonstrations on dental models to show real-time applications of the techniques taught. This culminates in a live surgical procedure, allowing participants to observe the practical use of digital workflows in action.

Additionally, the course will cover chair-side 3D printing, showcasing how on-demand manufacturing can enhance turnaround times and boost patient satisfaction. It will also address essential strategies for successful cementation, emphasizing material selection, bonding techniques, and effective solutions to common challenges.

By the conclusion of this course, attendees will have a comprehensive understanding of the complete digital workflow in aesthetic dentistry, enabling them to provide superior patient care through innovative methodologies and technologies. Participants are invited to enhance their practice and deliver exceptional aesthetic results.



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## Take-home messages:

1. Comprehensive Understanding of Digital Workflow in Restorative Dentistry
2. Practical Application of Techniques
3. Importance of Immediate Dentine Sealing (IDS)
4. Leveraging AI for Improved Patient Care
5. Enhanced Skills in Digital Scanning and CAD/CAM Design
6. Effective Utilization of Innovative Tools like AquaCare
7. Successful Cementation Strategies

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## Program Outline

(09:30 – 11:15)

### 1. Digitally driven Preparation for Indirect Aesthetic Restorations

- Optimizing Tooth Preparation in Digital Dentistry
- Utilizing CAD/CAM for Precision and Accuracy
- Achieving Aesthetic Outcomes Using Digital Technology
- Workflow Integration: From Diagnosis to Restoration

**Demonstration of Digitally Driven Preparation on models**

### 2. IDS (Immediate Dentine Sealing) and Successful Bonding Techniques

- Understanding the Science Behind Immediate Dentine Sealing
- Best Practices for Effective Bonding in Aesthetic Dentistry
- Materials and Methods for Optimal Adhesion
- Preventing Post-operative Sensitivity with IDS

11:15 – 11:30

*Coffee Break*

(11:30 – 13:00)

### 3. Digital Scanning

- High-Precision Scanning Techniques for Optimal Outcomes
- Comparing Traditional vs. Digital Impressions
- Integrating Digital Scanning into Clinical Workflows
- Troubleshooting Common Issues in Digital Scanning

**Demonstration of IOS scanning**

13:00 – 14:00

*Lunch break*

(14:00 – 15:45)

### 4. Designing with AI (Dentscape Software)

- Leveraging AI for Enhanced Design Precision
- Streamlining Aesthetic Restoration Planning with Dentscape
- From Data to Design: AI in Dental Aesthetics
- Customizing Treatment Plans with Intelligent Software Solutions

### 5. Chair-side 3D Printing the Restorations

- The Future of Dentistry: On-Demand 3D Printing
- Permanent Materials and Techniques for Successful Chair-side Printing
- From Digital Design to Physical Restoration: A Seamless Workflow
- Advantages of In-Office 3D Printing for Patient Satisfaction with Definitive Restoration

**Live Demo 3D printing of the restoration**

15:45 – 16:00

*Afternoon coffee break*

# From Scan to Smile

## Program Outline

### (16:00 – 17:30) **6. AquaCare: A Useful Tool for High-Quality & Biomimetic Dentistry**

- Enhancing Treatment Efficiency with AquaCare
- Integrating AquaCare into Everyday Practice
- Advantages of AquaCare in Minimally Invasive Procedures
- Using AquaCare for optimal Cementation
- Case Studies: AquaCare in Aesthetic Dentistry

### **7. Keys to Successful Cementation**

- Understanding the Importance of Cement Selection
- Techniques for Achieving Strong and Long-lasting Bonds
- Troubleshooting Cementation Challenges in Aesthetic Restorations
- Impact of Cementation on Aesthetic Outcomes and Longevity

### (17:30 – 18:00) **Live surgery**



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## Brief introduction about our sponsors:



Apple Dental is a leading company based in China, dedicated to providing high-quality dental products and solutions. Apple Dental aims to enhance clinical practices and improve patient outcomes by specializing in dental materials, equipment, and technology. The company emphasizes innovation and employs advanced manufacturing techniques to ensure its offerings meet international quality standards. By collaborating closely with dental professionals, Apple Dental continuously refines its products based on real-world feedback and clinical needs. Additionally, the company provides comprehensive training and support to empower practitioners to utilize their technologies effectively. With a commitment to excellence, Apple Dental is dedicated to advancing the dental industry both in China and globally.

[www.appledentalmed.com](http://www.appledentalmed.com)

## AquaCare

AquaCare is a prominent UK-based company dedicated to developing innovative dental products that enhance patient care and clinical outcomes. Specializing in advanced irrigation systems and minimally invasive tools, AquaCare focuses on optimizing efficiency and comfort during dental procedures. The company emphasizes quality and safety, ensuring that all products undergo rigorous testing to meet industry standards. By collaborating with dental professionals, AquaCare continuously refines its offerings based on real-world feedback. Additionally, AquaCare provides comprehensive training and support to empower practitioners to utilize its technologies effectively. With a commitment to innovation, AquaCare is shaping the future of modern dentistry.

[www.velopex.com](http://www.velopex.com)

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## Brief introduction about our sponsors:



Dentscape is a cutting-edge US-based technology company focused on transforming the dental industry through innovative software solutions. Specializing in digital design and workflow optimization, Dentscape offers advanced artificial intelligence tools that streamline the planning and execution of dental restorations. Their user-friendly software allows dental professionals to create high-quality, aesthetically pleasing restorations with greater precision and efficiency. Committed to continuous improvement, Dentscape collaborates closely with dental practitioners to refine its products based on real-world experiences. The company also provides comprehensive training and support to ensure effective implementation of its technologies. With a dedication to excellence and innovation, Dentscape is shaping the future of modern dentistry.

[www.dentscape.ai](http://www.dentscape.ai)



Dentratec is a pioneering company specializing in 3D printing solutions for the dental industry. Focused on transforming dental practices, Dentratec provides advanced additive manufacturing technologies that enhance precision and efficiency in dental restorations. Their state-of-the-art 3D printers produce high-quality dental models, prosthetics, and devices rapidly, enabling professionals to improve patient care. Committed to quality, Dentratec utilizes superior materials to meet industry standards and collaborates closely with dental practitioners to refine its offerings. Additionally, the company offers comprehensive training and support, empowering dental professionals to seamlessly integrate 3D printing technology into their workflows, driving innovation in digital dentistry.

[www.dentratec.com](http://www.dentratec.com)

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**Brief introduction about our sponsors:**



Yamakin Dental is a leading company based in Japan, specializing in the development and manufacturing of high-quality dental materials and equipment. Committed to innovation, Yamakin offers a diverse range of products, including dental adhesives, impression materials, and restorative solutions that enhance clinical outcomes and patient satisfaction. The company prioritizes research and development to ensure compliance with rigorous industry standards. By collaborating with dental professionals, Yamakin continuously refines its offerings based on practical feedback. With a focus on quality and reliability, Yamakin Dental is dedicated to advancing the dental industry in Japan and beyond, fostering better practices and improving patient care.

[www.yamakin-global.com](http://www.yamakin-global.com)



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