Inderprastha
Dental College & Hospital

Institutional Distinctiveness –
Digital dentistry - 3D Scanner and 3D Printer

Inderprastha Dental College & Hospital (IPDC) believes in continuously upgrading the exposure of student to new technologies being introduced in to the dental world. This approach keeps IPDC, always a step ahead in dental education. In this regard, IPDC recently procured a state of the art 3-D Scanner DW-IO-100. An Intraoral Scanner is a dental 3D scanner intended to be used for digital records of topographical characteristics of teeth and surrounding tissues. The 3D scanning system produces digital 3D models, used in dentistry such as diagnostic models, treatment planning, treatment prediction, laboratory transfer, record keeping.

Intraoral Scanner consists of a computer system with designated software and a hand piece equipped with optical sensor. Sensor in the hand piece of the Intraoral Scanner provides input data, which is processed by the software and converted to digital file. Throughout the process the scanned area of oral cavity is also displayed on the monitor screen of the attached computer system.

IPDC has also installed the 3D printer for the educating the PGs and UGs to the state-of-the-art treatment procedures such as clear aligners, 3D printed surgical splints, restorations, prosthesis activities.

Areas of use of 3D scanner and Printer

- 3D printed models can be used to fabricate clear aligners as the most advance orthodontic treatment.

- For scanning the oral cavity, for restorative and orthodontic procedures.

- 3-Dmappingoftheoralcavity helps to create digital impressions which are used as inputs for CAD/CAM, CBCT, etc.

- 3D printed Dentures fabricate the final product with no further manufacturing steps necessary.

- 3D printed casting patterns help in cast items like crowns, bridges and copings.

- 3D printed Surgical guides are used to assist in surgical procedures.

- 3D printed dental models help in planning denture restorations and other procedure.

Digital dentistry is the only way in these fast-changing times. The combination of 3-D Scanner and 3-D printer has boosted the learning and understanding for students. Our faculty is well versed by the technology, initially IPDC, conducted training and workshop for the up gradation of knowledge and skills of the faculty.

Final year undergraduates learn to use these equipments during their postings in the Department of Orthodontics and Prosthodontics. Students appreciate the precisions in their impressions and understand how digital impressions can benefit both patient and dentist. Our Post-Graduate students have been using 3-D printer to fabricate clear aligners and delivering high quality treatment to the patients.

Thus, at IPDC Undergraduate and Post Graduate Students are given exposure to use the 3D Scanner and Printer, under the supervision of staff. Students are also
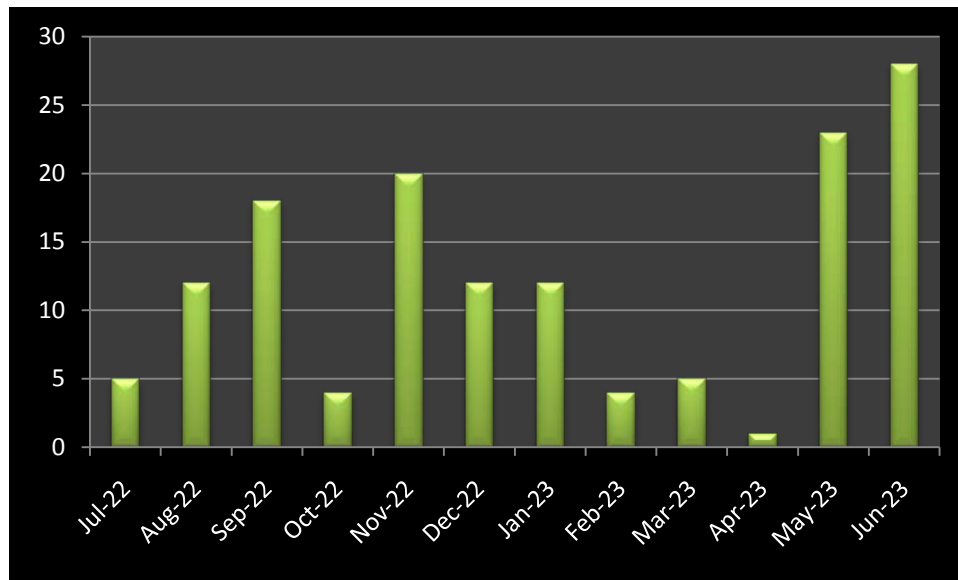
taught to read the scans and further transfer the files for 3D printing. Scanning and printing is now an integral part of practice by students and staff to deliver precise treatment in less time.
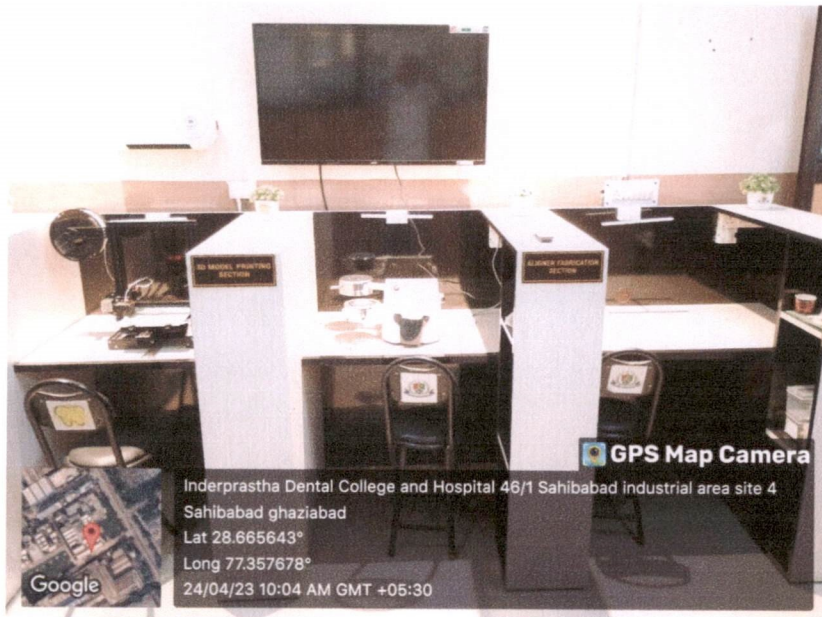
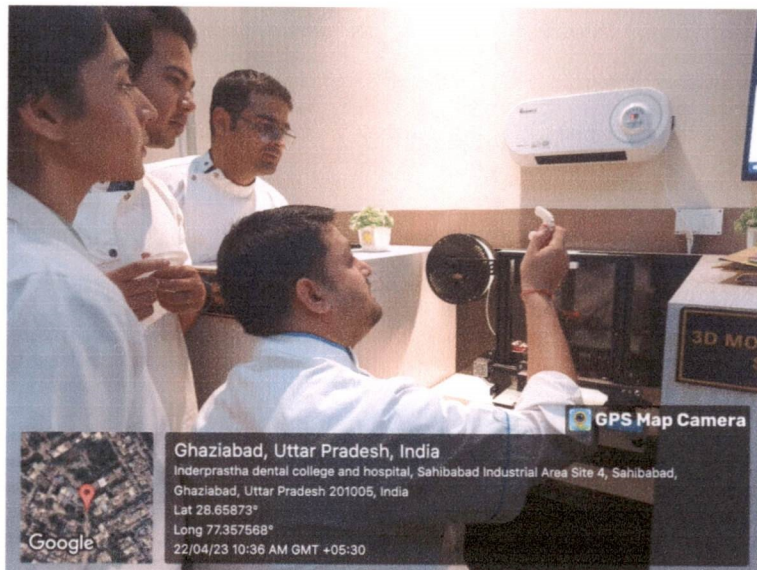Number of scans and models printed during 2022-2023 session

Inderprastha
Dental College & Hospital

Distinctiveness –
Digital Dentistry with 3D Printer and 3D Scanner

Inderprastha Dental College and Hospital 46/1 Sahibabad industrial area site 4
Sahibabad ghaziabad
Lat 28.665643°
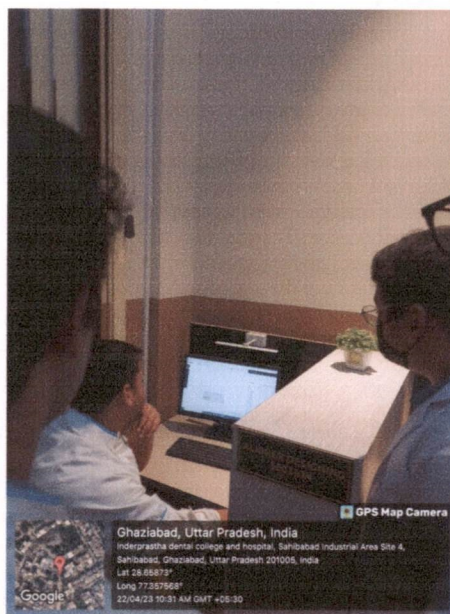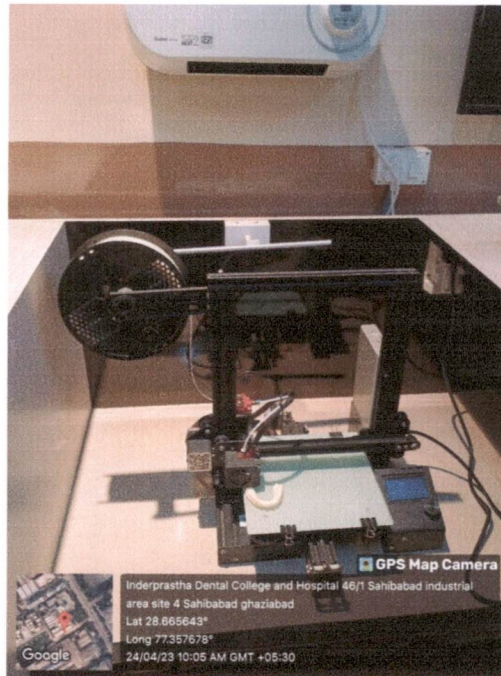Long 77.357678°
24/04/23 10:04 AM GMT +05:30

Ghaziabad, Uttar Pradesh, India
Inderprastha dental college and hospital, Sahibabad Industrial Area Site 4, Sahibabad,
Ghaziabad, Uttar Pradesh 201005, India
Lat 28.65873°
Long 77.357568°
22/04/23 10:36 AM GMT +05:30
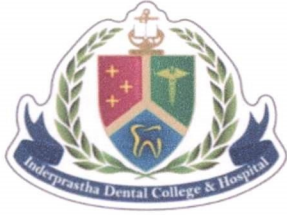
3D Printer SectionInstitutional
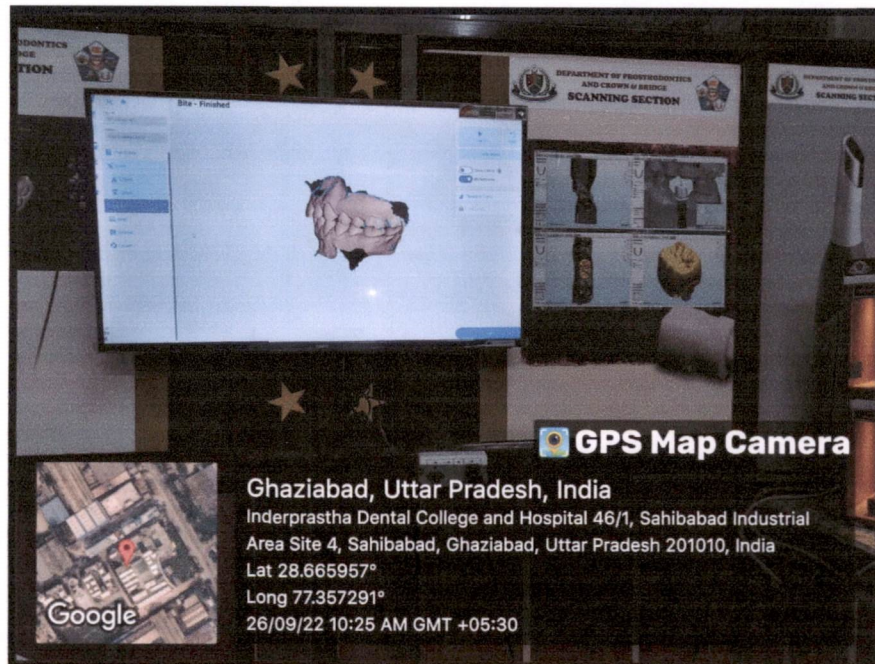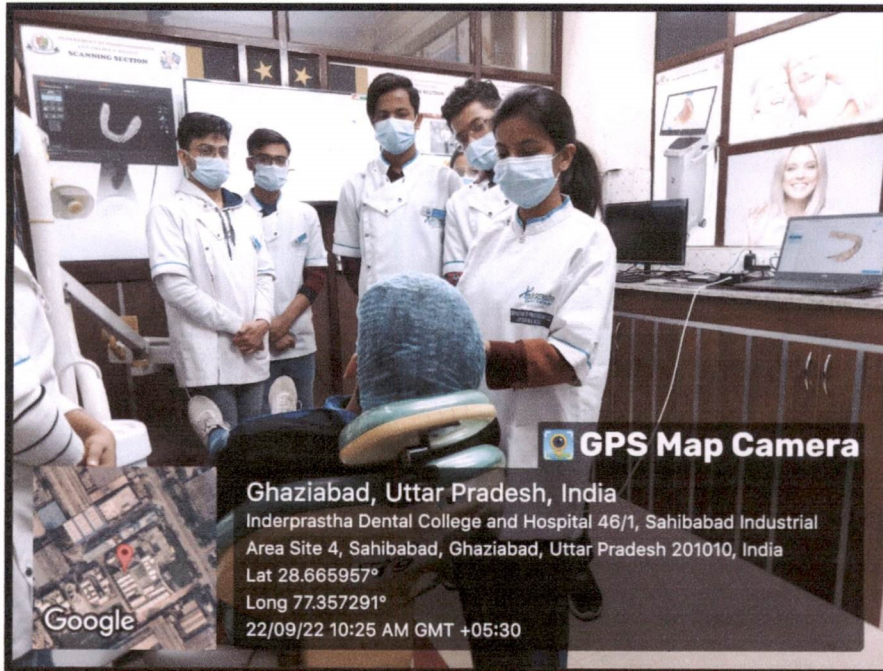
Inderprastha
Dental College & Hospital

3D Printer setup

Inderprastha
Dental College & Hospital

Institutional Distinctiveness

Ghaziabad, Uttar Pradesh, India
Inderprastha Dental College and Hospital 46/1, Sahibabad Industrial
Area Site 4, Sahibabad, Ghaziabad, Uttar Pradesh 201010, India
Lat 28.665957°
Long 77.357291°
22/09/22 10:25 AM GMT +05:30

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Inderprastha Dental College and Hospital 46/1, Sahibabad Industrial
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3-D Scanner Setup