



Sri Ramachandra Dental Center, Chennai-600116

Fellowship Program in “Diode Lasers in Dentistry”

The Sri Ramachandra Dental Center and Department of Periodontology in association with Department of Conservative Dentistry and Endodontics and Department of Oral and Maxillofacial Surgery is pleased to announce the admission to

Fellowship Program in” DIODE LASERS IN DENTISTRY”

Course Details:

1. Name of the Program: Fellowship program in “DIODE LASERS IN DENTISTRY”

- **Qualification** : BDS/ MDS (any specialty)
- **Number of seats** : 10 (starts August 2023)
- **Course Duration** : One year- Module based program- 4 modules in 1 year
- **Course Fee** : Rs. 75,000 (Rupees Seventy-five thousand only) + GST as applicable.
- **Stipend** : Nil.
- **Training timings** : 9.30 AM - 3.00 PM
- **Attendance requirement for examination:** 90%.

➤ ***Last date for submitting Application July 31st 2023***

➤ ***Training commences August 2023.***

Those interested may kindly submit the prescribed application form to below address

Address for communication:

The Medical Superintendent (Dental)
Sri Ramachandra Dental Center, Porur, Chennai-600116
Phone – 044 – 24768027 ; Extn : 8256 (8 to 4 pm)

Website : www.sriramachandra.edu.in
E mail : ms.dental@sriramachandra.edu.in



Sri Ramachandra Dental Center, Chennai-600116

Fellowship Program in “Diode Lasers in Dentistry”

Application Form: 2023-24 session

S.NO	Candidate Details	Information
1.	Name of Candidate (BLOCK letters- as given in provisional/ degree certificate)	
	Expand the Initials	
	Complete Address (District / State / Pincode)	
	Communication Address (District / State / Pincode)	
	Phone No: Landline Number: Mobile Number :	
	E-mail ID	
	Father/ Husband's Name:	
	Mother's Name:	
	Contact Number of Parent	
2.	Gender of Candidate	Male/ Female
3.	Date of Birth [DD/MM/YY] / Age (yrs)	
4.	Place of Birth	

5.	DCI registration Number (Please enclose certificate) If applied for, it has to be submitted before February 2023.	
6.	Qualifying Examination (please provide self- attested copies of the provisional/ degree certificates)	BDS/ MDS
7.	Name and address of the Dental College and Affiliated University Undergraduate: Post graduate:	
8.	Whether college or course is recognized by DCI	Yes/ No
9.	Whether the candidate has passed the exams on the first attempt Undergraduate: Post graduate:	Yes/ No. If no Mention the number of attempts. If yes write NA below
10.	Papers/ Posters Presented (mention number only and provide copy as attachment)	

	Undergraduate: Post graduate:	
11.	Publications (mention number only and provide copy as attachment)	
12.	Any other advanced training attended (mention number only and provide copy as attachment)	

DECLARATION BY THE CANDIDATE

I declare that the information furnished by me herein are true and correct. In case any information furnished herein is found to be incorrect or any document is found to be not genuine, I agree to forego my claim for admission and abide by the decision of the Sri Ramachandra Dental Centre authorities.

I further declare that I have read the prospectus furnished with the application form fully and understood the contents therein clearly and I hereby undertake to abide by the conditions prescribed therein. I undertake to abide by the Rules and Regulation of Sri Ramachandra Dental Centre.

Place:

Signature of the Candidate

Date:

Name:

Checklist of Documents: (Copies to be sent as attachment along with application form)

S. NO	Document	Provided (sent as attachment). Please tick as applicable.
1.	BDS Degree Certificate	Yes/ No
2.	MDS Degree certificate	Yes/ No/ NA
3.	DCI registration certificate	Yes/ No
4.	Papers/ Poster presentation certificate	Yes/ No
5.	Publications	Yes/ No
6.	Advanced Training	Yes/ No

Submit online Application (with attachments) to

The Medical Superintendent (Dental),
Sri Ramachandra Dental Centre, Porur, Chennai – 600 116.

Email: ms.dental@sriramachandra.edu.in

With copies marked to

dean.dental@sriramachandra.edu.in
vicechancellor@sriramachandra.edu.in
registrar@sriramachandra.edu.in

Regulations and Syllabus are enclosed below for reference.

Regulations and Syllabus for

FELLOWSHIP IN “DIODE LASERS IN DENTISTRY”

INTRODUCTION AND RELEVANCE:

The Laser Clinic of the Department of Periodontology, has been functioning for the past ten years since 2010. It is well equipped with a separate laser room, laser equipment and personnel needed for the safe use of a laser. An average of 300 cases are treated per year and research is performed by postgraduate and undergraduate students using the laser equipment under guidance of the trained specialists.

The Clinic is staffed by a faculty trained in Lasers (MSc in Lasers In Dentistry) with 13 years of clinical experience with lasers, one faculty with Post graduate certificate course in Lasers and another one faculty with Associate fellowship in Lasers. Postgraduates from Department of Periodontology, Conservative dentistry and Oral and Maxillofacial surgery, undergo clinical exposure and perform cases in the Laser clinic. One day workshops on Laser use in clinical application are also conducted for BDS Interns over two or three batches every year.

Technology has grown by leaps and bounds and with more information about recent advances available to the patients, there is a greater awareness of the new technologies which make dental treatment faster, more comfortable for the patient. Lasers are at the forefront of the recent advances and have made the dental treatment more acceptable due to minimal invasiveness, lack of bleeding and no anesthesia and sutures being needed for specific procedures.

Hence there is a need for Dental Laser specialists who have participated and been trained in a Fellowship Program with adequate knowledge and technical training in Laser use which can enable them to provide state of the art care and meet patient expectations.

This training program is for dentists who have completed BDS. MDS and who wish to sub-specialize in this new field and develop the skills needed for safe and successful use of Lasers in Dentistry.

AIM OF THE PROGRAM:

- To acquire specialized knowledge in all aspect of Diode Laser functioning, Safety and Clinical Applications in dentistry.

Objectives of the program:

1. To acquire adequate knowledge in the Physics of Lasers in general and Diode lasers in specific.
2. To develop competence in Diode laser equipment operation based on the knowledge of the biology of laser tissue interaction.
3. To recognize and implement the laser safety guidelines and safety measures in a dental clinic.
4. To be able to identify specific clinical indications and perform with competence the clinical procedures in dentistry with diode lasers.
5. To recognize the need for and acquire the knowledge needed to carry out dental research with Diode lasers.

REGULATIONS FOR FELLOWSHIP PROGRAMME IN “DIODE LASERS IN DENTISTRY”

ELIGIBILITY

Candidate for admission to the Fellowship Program in Diode Lasers in Dentistry shall be required to possess the following qualifications:

- (a) He/she must have qualified for the BDS (Bachelor in Dental Surgery) / MDS- any specialty (Master in Dental Surgery) from this University or of any other University recognized as equivalent thereto by the authority of this University and the Dental Council of India and obtained permanent registration from any of the State Dental Councils.
- (b) The admitting authorities of the Sri Ramachandra Dental Hospital will strictly ensure that every candidate admitted to the Fellowship Program in Diode Lasers in Dentistry has obtained permanent registration certificate from any one of the State Dental Councils.

REGISTRATION

A candidate admitted to Fellowship Program in Diode Lasers in Dentistry of Sri Ramachandra

Dental Center, Porur, Chennai-600116, shall register his/her name with the Dental Center by remitting the prescribed fees along with the application for registration duly filled in and forwarded to the Medical Superintendent (Dental) of the Faculty of Dental Sciences.

DURATION OF THE COURSE:

- (a) The period of certified study and training for the Fellowship Program in Diode Lasers in Dentistry shall be ONE academic year for the award of Fellowship certificate.
- (b) No exemption shall be given from the period of study and training.

COMMENCEMENT OF THE COURSE:

The academic year for the Fellowship Program in Diode Lasers in Dentistry would ordinarily, commence from the month of July of every academic year.

CUT-OFF DATES

The candidates admitted and registered from 1st August 2023 to 31st July 2024 shall take up their regular examinations before the end of July 2024 at the end of the program.

COMMENCEMENT OF EXAMINATIONS

There shall be an examination at the end of every module in an academic year – Total of Four modules with four examinations. The exams at the end of each of the three modules, will be for 50 marks and will be used for formative assessment. The examination at the end of the Fourth module will be the final examination for 200 marks and will be used for summative assessment and deciding the issue of the fellowship certificate.

ATTENDANCE REQUIREMENT FOR ADMISSION TO EXAMINATION

No candidate shall be permitted to appear for the Examination unless he/she puts in 90% attendance during his/her period of study and training and produces the necessary certificate of study, attendance and progress from the Course Director.

CONDONATION OF LACK OF ATTENDANCE

There shall be no condonation lack of attendance for students of the Fellowship Program. (90 %).

NUMBER OF APPEARANCES

A candidate registered for the Fellowship Program in Diode Lasers in Dentistry must qualify in the examinations within two consequent attempts from the date of his/her admission, failing which he/she shall be discharged from the course.

MAINTENANCE OF LOG BOOK

1. Every Fellow shall maintain a record of skills he/she has acquired during the training period certified by the Course Director/ Faculty of Departments under whom he/she has undergone training.
2. In addition, the Course Director shall involve their Fellows in Seminars, Journal Club, Group Discussions and participation in Clinical, Clinico-Pathological conferences.
3. Every Fellow should be encouraged to present short title papers in conferences and to make improvements on it and submit them for publication in reputed medical journals.
4. The Course Director shall scrutinize the logbook once at end of every module.
5. The logbook should be submitted at the time of clinical/practical examination for the scrutiny of the Board of Examiners.

Award of Certificate

Certificate will be awarded duly signed by Course Director of the Fellowship program, Medical Superintendent [Dental] of Sri Ramachandra Dental Hospital. **This program does not come under the purview of Dental Council of India and is not an additional registerable qualification with the Dental Council of India**

Scheme of Examination
Conducted at the end of the Program

Clinical skill: Practical examination

1. Laser set up- Diode lasers.
2. Laser safety evaluation.
3. Clinical exam – involves doing treatment planning and executing the treatment with the appropriate laser settings on a patient given on the day of exam.

The candidate will be required to complete the tests in the stipulated time and answer relevant questions.

OSCE examinations

1: OSCE to test basic knowledge – 30 marks

- a) Physics - 10
- b) Laser setup - 10
- c) Laser safety- 10

2: OSCE to test clinical application – 70 marks

- a) Treatment planning for the allotted case – 30 marks
- b) Executing the treatment planning and patient management- 40 marks.

Theory Paper – 100 marks

- | | | |
|-------------------------------------|---------------|------|
| - 2 essays: | 10 marks each | - 20 |
| - 8 short notes: | 5 marks each | - 40 |
| - 30 MCQ | 20 marks | - 30 |
| - Internal assessment- Case records | | - 20 |

Total Marks: OSCE and Theory together- 200 marks.

Short exams of 50 Marks will be conducted at the end of every module for evaluating the understanding and progress shown by the candidates

Scheme of Training Programme

Protocols for Training: Module Based Training system- 4 modules of training 10 days of training per module- over one academic year.

1. **FIRST MODULE:** Laser physics, Laser-tissue interaction, Laser Setup, Journal Club- one article per candidate
2. **SECOND MODULE:** Laser safety, Pre-clinical work, Different laser systems available [at least 3 different companies available in the market], Diode laser application in Periodontics, Diode Laser applications in Endodontics, One review article discussion per candidate- specific topics.
3. **THIRD MODULE:** Case assessment, presentation, treatment planning, Live patient demo- 5 cases, patients hands-on by Candidates- per candidate 5 cases, Diode laser applications in Oral surgery. Photodynamic therapy, Photo-biomodulation therapy with diode lasers.
4. **FINAL MODULE:** Introduction to other types of Lasers- Nd YAG, Er YAG, Co2- Only theory. How to conduct a Laser based Dental practice, Management of complications following use of diode lasers, Case presentations by candidates of cases performed in private practice/ college setup with diode lasers. Final exams- 200 Marks

Short exams of 50 marks will be conducted at the end of every module for evaluating the understanding and progress shown by the candidates

SYLLABUS

The trainee will be expected to have in-depth knowledge in the following areas:

1: Basic Sciences

1. Laser Physics.
2. Anatomy and histology of periodontium, teeth and other oral structures.
3. Laser-tissue interactions.

2: Laser safety

4. ANSI Z136.1 guidelines and IEC 60825-1 norms for Lasers and OSHA guidelines.

3: Diode Laser principles – applications for clinical practice

5. Diode Lasers for Minor periodontal surgery.
6. Diode Lasers- Photodynamic therapy.
7. Diode Lasers- Photo-biomodulation
8. Diode lasers- Endodontic applications.
9. Diode Lasers- in biopsy and minor oral surgery.
10. Diode Lasers- Non surgical periodontal therapy

B. Technological Skills

Understanding basic mechanical and electrical function of Diode laser machines, and basic maintenance of the same.

C. MANAGEMENT SKILLS

The trainee will be expected to have received training or experience in the following areas and to have been involved as a participant in the management of a Laser Dentistry Clinic:

- i. Personnel
 - Training in personnel management.
 - Safety mechanisms.
- ii. Audit
 - Risk management and clinical governance.
 - Assessment of equipment and resource.

A. Continued personal development:

- i. Critical approach to information gained from literature review and audit.
- ii. Preparation of manuscripts and teaching materials.
- iii. Oral presentation skills.
- iv. Time management skills.
- v. “Reflective practice” skills – learning and creating knowledge by personal reflection.

C. Research

- i. Innovative approach to clinical problems.
- ii. Willingness to assess evidence on which to base practice.
- iii. Understanding of research methodology, including the randomized controlled trial.
- iv. Attendance at research orientated national meetings.
- v. To have undertaken a defined piece of academic research, which has led to publication in a peer, reviewed journal.

TEXTBOOKS

- A. Principles and Practice of Laser Dentistry, 2 nd Edition, Robert A Convissar, Elsevier Mosby Publishers.
- B. Atlas of Current Oral Surgery. Namour S, Universal Publishers , Boca Raton.
- C. Fundamentals of Laser Dentistry, Kirpa Johar, Jaypee Brothers Medical Publishers.
- D. Soft tissue Lasers in Dental Hygiene. Jessica Blayden and Angie Mott. Wiley- Blackwell publishers.

JOURNALS

- 1. Lasers in Dental Science, Springer Publications.
- 2. Photomedicine and Laser surgery, Ann Liebert , Inc.
- 3. International Journal of Laser Dentistry, Jaypee Publishers.
- 4. Journal of Clinical Periodontology, Wiley Publishers
- 5. Journal of Periodontology, Wiley Publishers
- 6. Journal of Dental Research, Sage Publications.

Databases and Search Engines

PubMed, Medline

Web of Sciences, Cochrane systematic reviews

FELLOWSHIP IN “DIODE LASERS IN DENTISTRY”

SCHEME OF EXAMINATION (AT THE END OF THE PROGRAM)

PAPER	PATTERN	MAXIMUM MARKS	TOTAL MARKS	PASSING MINIMUM
Theory	- 2 essays: 10 marks each	20	100	50
	- 8 short notes: 5 marks each.	40		
	- 30 MCQ: 1 mark each	30		
	- Internal assessment- Case records	10		

Aggregate passing minimum: 50/100

Scheme of Training Program- Detailed Program Schedule

Protocols for Training: Module Based Training system- 4 modules of training: Total of 40days in one academic year.

Program Time Schedule: 2023-24: Fellowship program in “Diode lasers in Dentistry”

Program Details	Module	Tentative Dates
<ul style="list-style-type: none"> ✓ Laser physics. ✓ Laser-tissue interaction, ✓ Diode Laser Setup. ✓ Journal Club- one article per candidate <p style="text-align: center;">Exam 1- 50 marks</p>	Module I	August 7 th 2023- August 17 th 2023
<ul style="list-style-type: none"> ✓ Laser safety. ✓ Pre-clinical work on animal models. ✓ Different laser systems available [at least 3 different companies available in the market]. ✓ Diode laser application in Periodontics ✓ Diode Laser applications in Endodontics. ✓ Clinical Observation of cases. ✓ One review article discussion per candidate- specific topics. <p style="text-align: center;">Exam 2- 50 marks</p>	Module II	September 4 th 2023- September 14 th 2023
<ul style="list-style-type: none"> ✓ Case assessment, presentation, treatment planning. ✓ Live patient demonstration- 5 cases. ✓ Patients hands-on by Candidates- per candidate 5 cases. ✓ Diode laser applications in Oral surgery. ✓ Photodynamic therapy. ✓ Photo-biomodulation therapy with diode lasers. <p style="text-align: center;">Exam 3- 50 marks</p>	Module III	October 9 th 2023 - October 19 th 2023
<ul style="list-style-type: none"> ✓ Introduction to other types of Lasers- Nd YAG, Er YAG, Co2- Only theory ✓ How to conduct a Laser based Dental practice. ✓ Management of complications following use of diode lasers. ✓ Case presentations by candidates of cases performed in private practice/ college setup with diode lasers <p style="text-align: center;">✓ Final exams- 200 Marks</p>	Module IV	November 6 th – 16 th 2023.

Short exams of 50 marks will be conducted at the end of every module for evaluating the understanding and progress shown by the candidates. Final exam marks will decide the issuance of the fellowship certificate.