

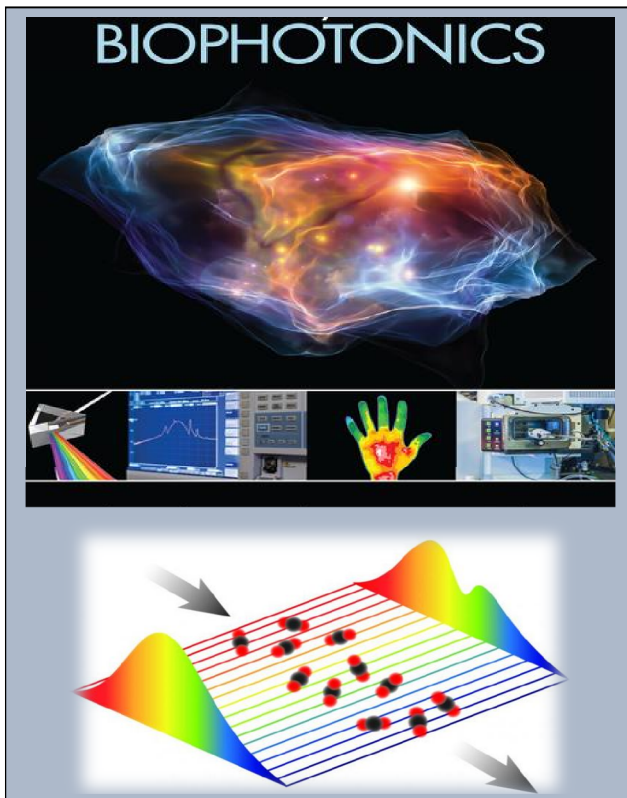
---

An Advanced Course on

# Principles of Biophotonics

(Under the aegis of GIAN)

24<sup>th</sup> June to 05<sup>th</sup> July, 2019



Sponsored by:

**MHRD, Govt. of India**

Organized by:

**Department of Electronics &  
Communication Engineering,  
Malaviya National Institute of  
Technology, Jaipur (Rajasthan)**

Jawahar Lal Nehru Marg, Jaipur,  
Rajasthan -302017,

Website: [www.mnit.ac.in](http://www.mnit.ac.in)

# Principles of Biophotonics

## Overview

Biophotonics reflects the union of the bio radical that means living with the term photonic, which refers to the physical elementary particle of light, known as the photon. Since the Napoleon wars, light has been used to enhance the biological process. From wound healing to the fight against antibiotic-resistant bacteria light has become a powerful tool to improve the overall quality of life. This course was conceived to collaborate in filling the gap on knowledge on Biophotonics, in which optics courses are too complex for people with only a bio background and biology courses are too complex for people with engineering or physics background.

Topics from basic principles of light and lasers physics; light-tissue interaction up to the state of the art in photo-biomodulation and photodynamic therapy will be covered.

The proposed 2-week course aims to offer a balanced technical content to suit the requirements of experts from both academia and industry. Hands-on exercise work related to the performance evaluation of proposed technologies will be included.

<b>Modules</b>	<ul style="list-style-type: none"> <li>➤ Concepts of light;</li> <li>➤ Lasers physics;</li> <li>➤ Light interaction with matter;</li> <li>➤ Light as a diagnostic tool;</li> <li>➤ Photo-biomodulation;</li> <li>➤ Photodynamic therapy;</li> </ul>
<b>Registration</b>	<p>Number of participants for the course will be limited to approx. fifty. Registration deadline 01 June 2019 (registration on first come first served basis). Visit <a href="http://www.gian.iitkgp.ac.in/GREGN">http://www.gian.iitkgp.ac.in/GREGN</a> for registration.</p>
<b>You Should Attend If you are...</b>	<ul style="list-style-type: none"> <li>▪ Practicing Engineers, physicists, physicians, nurses, odontologists, physical therapists, physical educations, biologist etc.</li> <li>▪ Graduate and Post-graduate students (BTech/MSc/MTech/PhD) as well as Faculty from academic institutions and technical institutions.</li> </ul>
<b>Fees</b>	<p>The participation fees for taking the course is as follows:</p> <p><b>Participants from abroad: US \$250 [US \$295 incl GST]</b>  <b>Industry / Research Organizations: Rs 6500/- [Rs 7670/- incl GST]</b>  <b>Faculty from Academic Institutions: Rs 3500/-[Rs 4130/- incl GST]</b>  <b>Research Scholars/Postgraduate students: Rs 2000/-[Rs 2360/- incl GST]</b></p> <p>The above fee includes all instructional materials and kit, computer use for tutorials and assignments, laboratory equipment usage charges if any, free internet facility, and lunch+tea on all days. GST needs to be paid, as per Institutes rules. The participants will be provided with accommodation on payment basis based on availability.</p> <p><b>Payment details: Online or DD</b></p> <p><b>(i) DD:</b> in name of <b>Registrar (Sponsored Research) MNIT Jaipur</b>, to be sent to: Prof Vijay Janyani, Coordinator (GIAN course on Biophotonics), Dept of ECE, MNIT Jaipur, JLN Marg, Jaipur-302017 (Rajasthan)</p> <p><b>(ii) Online payment:</b> Account Name- <b>Registrar (Sponsored Research) MNIT Jaipur</b>, Account No.: <b>676801700388</b>, IFSC-<b>ICIC0006768</b>, Bank Name: <b>ICICI Bank Ltd.</b>, Branch: <b>MNIT Jaipur</b>, MICR:<b>302229031</b>.</p>
<b>Contact for any queries</b>	<p>Prof Vijay Janyani, Coordinator, <a href="mailto:vjanyani.ece@mnit.ac.in">vjanyani.ece@mnit.ac.in</a>, 9549654240.</p>

## The Faculty



Dr Alessandro M. Deana has 15+ years of experience in teaching and R&D in photonics. The major part of his carrier has been as a full professor at University Nove de Julho in Brazil. With over 70 peer-reviewed published papers, 100+ conference papers hi has a solid background in both: lasers engineering and in biophotonics. His areas of interests are laser-computer aided diagnostics, solid states lasers and photo-biomodulation.



Prof Vijay Janyani completed his Bachelor's and Master's degrees in EC Engg. from MNIT Jaipur and PhD from University of Nottingham, UK. He has over twenty years of teaching and research experience and is currently a professor at the Department of ECE at MNIT Jaipur, and also the Head of Materials Research Center. He is a recipient of Derrick Kirk Prize of University of Nottingham UK for excellence in research, Commonwealth Ph.D. Scholarship of British Council UK, Career Award for Young Teachers of AICTE, New Delhi. Dr. Janyani is SMIEEE, LFOSI, SMOSA, SMSPIE, and FIETE.



Dr. Ghanshyam Singh received PhD degree in ECE and is Professor with the Department of ECE at MNIT Jaipur. Prof Singh was awarded as 'Distinguished Lecturership' by IEEE Photonics Society for term 2017-18. In past, he worked with HW University, Edinburgh, UEF Joensuu, Finland and KEIO University, Japan. Prof. Singh has delivered talks at various Universities in India/abroad. Dr. Singh is SMOSA, SMIEEE and MSPIE.

## PRINCIPLES OF BIOPHOTONICS

...

**Expert (Foreign Faculty):**

**Dr Alessandro M Deana  
Professor in Photonics and  
Biophotonics,  
Universidade Nove de  
Julho, Sao Paulo, Brazil**

...

**Course Co-ordinator:**

**Prof. Vijay Janyani**

Phone: +91-9549654240

E-mail: [vjanyani.ece@mnit.ac.in](mailto:vjanyani.ece@mnit.ac.in)

**Course Co-coordinator:**

**Prof. Ghanshyam Singh**

E-mail: [gsingh.ece@mnit.ac.in](mailto:gsingh.ece@mnit.ac.in)

.....  
For Registration:

<http://www.gian.iitkgp.ac.in/GREGN>

For more details and how to pay fee:

<http://mnit.ac.in/gian/courses.php>



**Registration Form**  
**Global Initiative on Academic**  
**Networks (GIAN) Program**  
**Principles of Biophotonics**  
June 24<sup>th</sup> July 05<sup>th</sup>, 2019



**Malaviya National Institute of Technology Jaipur – 302017**

<b>Name</b>	
<b>Designation</b>	
<b>Department</b>	
<b>Organization</b>	
<b>Address for Correspondence</b>	
<b>Email ID</b>	
<b>Mobile Number</b>	
<b>Field of Specialization</b>	
<b>Accommodation Required:(Yes/No)</b>	
<b>Details of Fee Paid DD/NEFT*</b>	DD No. _____ dated _____ drawn on _____  amounting to Rs. _____/-only.  <b>Or</b> NEFT dated _____ Transaction ID _____ amounting to Rs. _____/-only.
<b>Signature of the Applicant with date</b>	

**Recommendation of the Sponsoring Authority**

The applicant is hereby sponsored for GIAN program on “**Principles of Biophotonics**” being organized by Department of ECE, MNIT Jaipur, and will be permitted to attend, if selected.

<b>Signature and Seal of the Sponsoring Authority with date</b>	
---	--