

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202131047683 A

(19) INDIA

(22) Date of filing of Application :20/10/2021

(43) Publication Date : 21/04/2023

(54) Title of the invention : OPTICAL SYSTEM AND METHOD FOR ACTIVE MODULATION OF OPTICAL SIGNALS.

(51) International classification	:G01B0009020000, A61B0005000000, H04J0014020000, G06F0009445000, C08L0067020000	(71) Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY BHUBANESWAR Address of Applicant :IIT BHUBANESWAR, Argul Campus, Khordha, Orissa, India- 752050 Orissa India
(31) Priority Document No	:NA	(72) Name of Inventor :
(32) Priority Date	:NA	1)Dr. Rajan Jha
(33) Name of priority country	:NA	2)Dr. Venugopal Arumuru
(86) International Application No	:NA	3)Kalipada Chatterjee
Filing Date	:NA	4)Subrat Sahu
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number:	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A dynamic optical signal modulation based on parallelly combined fiber modal interferometry technique over broad frequency range. The proposed system enables real time controllable optical signal amplification, attenuation and filtering by varying the applied dynamic field about reference interferometer. The designed probe is temperature tolerant, immune to electromagnetic interference, light weight, and reconfigurable with respect to the range of operation and sensitivity.

No. of Pages : 27 No. of Claims : 10