



Office of the Controller General of Patents, Designs & Trade Marks  
Department of Industrial Policy & Promotion,  
Ministry of Commerce & Industry,  
Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

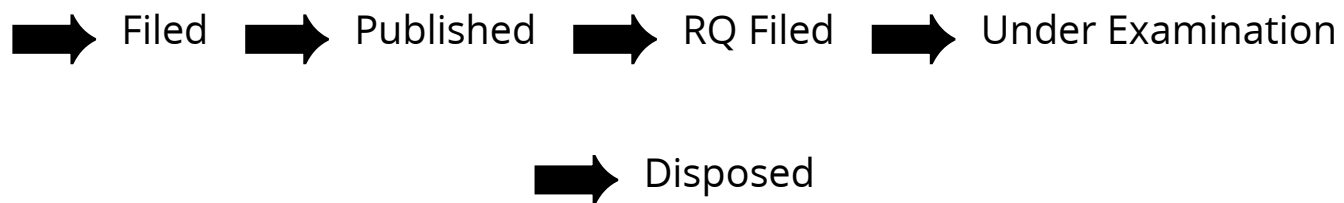
#### Application Details

APPLICATION NUMBER	202241045623
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	10/08/2022
APPLICANT NAME	VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY
TITLE OF INVENTION	Coupled Inductor based DC-DC Boost Converter
FIELD OF INVENTION	ELECTRICAL
E-MAIL (As Per Record)	info@iprsrg.com
ADDITIONAL-EMAIL (As Per Record)	lipi.kaundilya@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	01/09/2022
PUBLICATION DATE (U/S 11A)	26/08/2022
REPLY TO FER DATE	16/12/2022

#### Application Status

APPLICATION STATUS	<b>Reply Filed. Application in amended examination</b>
--------------------	--

[View Documents](#)



In case of any discrepancy in status, kindly contact [ipo-helpdesk@nic.in](mailto:ipo-helpdesk@nic.in)

(54) Title of the invention : Coupled Inductor based DC-DC Boost Converter

<p>(51) International classification :H02M0003158000, H02M0003156000, H02M0003157000, H03M0003000000, H01F0027280000</p> <p>(86) International Application No Filing Date :PCT// :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number Filing Date :NA :NA :NA</p> <p>(62) Divisional to Application Number Filing Date :NA :NA</p>	<p>(71)Name of Applicant :  <b>1)VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY</b>  Address of Applicant :Vignana Jyothi Nagar, Pragathi Nagar, Nizampet (S.O), Hyderabad – 500 090, Telangana State, India  Nizampet -----  <b>Name of Applicant : NA</b>  <b>Address of Applicant : NA</b></p> <p>(72)Name of Inventor :  <b>1)Mrs. R Geshma Kumari</b>  Address of Applicant :Vignana Jyothi Nagar, Pragathi Nagar, Nizampet (S.O), Hyderabad 500 090 Telangana State, India.  Nizampet -----  <b>2)Dr. Naresh Pasula</b>  Address of Applicant :Vignana Jyothi Nagar, Pragathi Nagar, Nizampet (S.O), Hyderabad 500 090 Telangana State, India.  Nizampet -----  <b>3)Dr. A Ezhilarasi</b>  Address of Applicant :Vignana Jyothi Nagar, Pragathi Nagar, Nizampet(S.O), Hyderabad 500 090 Telangana State, India.  Nizampet -----  <b>4)Mrs. P Geetanjali</b>  Address of Applicant :Vignana Jyothi Nagar, Pragathi Nagar, Nizampet(S.O), Hyderabad 500 090 Telangana State, India.  Nizampet -----</p>
--	--

(57) Abstract :

A coupled inductor-based DC-DC boost converter (1) comprising a gate driver (2), coupled inductor (3), MOSFET IRFP2907 (4), diode RHR30120 (5), capacitor (6), arduino for pulse generation (7). The converter (1) having two winding tightly coupled inductor (3) having  $\approx 0.99$  coupling factor are used for low ripple and low leakage, that provides galvanic isolation. The converter (1) provides 9% duty cycle one can get nearly 10 gain which is very high and has the least number of devices and losses with high efficiency. The proposed converter operated in two modes, a) non-shoot through state b) shoot through state.

No. of Pages : 19 No. of Claims : 8