Brief Bio-sketch of Professor M.V. Kartikeyan

Professor M.V. Kartikeyan received the M.Sc. and Ph.D. degrees in physics and electronics engineering from Banaras Hindu University, Varanasi, India, in 1985 and 1992, respectively. He was a Research Scientist with the Central Electronics Engineering Research Institute, Pilani, India, from 1989 to 2001. He was with Institut für Hochleistungsimpuls-und Mikrowellentechnik, Karlsruhe Institute of Technology, Karlsruhe, Germany (1996, 1998-2000, 2001-2003).

He joined the Department of Electronics and Computer Engineering, Indian Institute of Technology (IIT), Roorkee, India, as an Associate Professor, in 2003, and elevated to Full-Professor in 2009. He worked as Head of the Institute Computer Center (January 2012 - April 2014) and Head of the Department of Electronics and Communication Engineering (May 2013 - February 2016). He is the principal author of four books entitled: (i) Gyrotrons-High Power Microwave and Millimeter Wave Technology, (ii) Soft Computing Methods for Microwave and Millimeter Wave Design Problems, (iii) Fractal Apertures in Waveguides, Conducting Screens and Cavities-Analysis and Design, and (iv) Compact antennas for high data rate communications: Ultra-wideband (UWB) and Multiple-input-multiple-output (MIMO) technology (Springer, 2004/2012/2014/2017). His current research interests include millimeter/THz wave engineering (electron cyclotron masers and other high power devices and components), Metamaterials and fractals in RF domain, Planar microstrip antennas and filters for communications, microwave integrated circuits, and RF and microwave design with soft computing techniques.

Prof. Kartikeyan is a Senior Member of IEEE, Fellow of the Institution of Engineering and Technology (UK), Institution of Electronics and Telecommunications Engineers (India), Institution of Engineers (India), and Vacuum Electronic Devices and Applications Society (India).

Prof. Kartikeyan is serving in the Editorial Advisory Board of the Journal of Infrared, Millimeter and Terahertz Waves (Springer-Nature Engineering Journal). He is the reviewer of IEEE Transactions (Electron Devices, Plasma Science), IET (Electronics Letters, Microwaves, Antennas & Propagation MAP), EuMA International Journal of Microwave and Wireless Technologies, Tylor & Francis IETE Journal of Research, and PIER (Progress In Electromagnetics Research.

Prof. Kartikeyan is a recipient of the Hildegard-Maier Research Fellowship for Electrical Sciences of the Alexander von Humboldt Foundation (1998-2000) and the Alexander von Humboldt Research Fellowship (2001-2003, 2011, 2012).

Profile of Professor Dr. M.V. Kartikeyan

Department of Electronics & Communication Engineering
Millimeter/THz Wave Laboratory
Indian Institute of Technology Roorkee, Roorkee 247 667, Uttarakhand, India
Voice : 00 91 1332 – 28 5727/6453 (O), – 28 5513 (R), Fax : – 28 5368, Email : kartik@iitr.ac.in / kartik@ieee.org

International Research Awards for Professional Recognition

Recipient of the ***Alexander von Humboldt Fellowship*** (from July 2001 to June 2003, June/July 2011, June/July 2012).

Recipient of the ***Hildegard–Maier Research Fellowship for Electrical Sciences by the Alexander von Humboldt Foundation*** (from December 1998 to January 2000).

Academic and R&D Experience

Research and Development:–

Around 29 years of R&D experience as Research Scientist at Central Electronics Engineering Research Institute (CEERI), Pilani, India, and Institut für Hochleistungsimpuls– und Mikrowellentechnik (IHM), Karlsruhe Institute of Technology (formerly Forschungszentrum Karlsruhe), Germany. Managed the following Grant–in–aid Sponsored Projects:

Year	Sponsoring Agency	External Cash Flow	PI or Co–PI	Status
1991–99	DAE	≈ Rs. 290 Lacs	Co–PI	Completed
2000–01	DAE	≈ Rs. 100 Lacs	Co–PI	Completed
2004–07	MHRD	Rs. 8 Lacs	PI	Completed
2006–15	DST	Rs. 84.60 Lacs	PI	Completed
2014–15	DRDO	Rs. 9.60 Lacs	PI	Completed
2015–18	DST	Rs. 380.00 Lacs	PI/Coordinator	FIST Grant
2016–18	DRDO	Rs. 30.00 Lacs	PI	On–going
2016–19	DRDO	Rs. 59.75 Lacs	Co–PI	On–going
2017–20	DRDO	Rs. 36.10 Lacs	PI	On–going
2017–20	DST	Rs. 40.49 Lacs	Co–PI	On–going
2017–18	RICET	Rs. 16.00 Lacs	PI	On–going
2017–	MHRD (SMILE)	Rs. 208.73 Lacs	Co-PI	Awarded

Academics:–

* Worked as the Head, Department of Electronics & Communication Engineering, Indian Institute of Technology, Roorkee (IITR), India (May 2013-February 2016).

* Worked as the Head, Institute Computer Center, Indian Institute of Technology, Roorkee (IITR), India (January 2012-April 2014)

* Working as a Full–Professor since September 2009 in the Department of Electronics and Computer Engineering, Indian institute of Technology, Roorkee (IITR), India.

* Worked as an Associate Professor from July 2003 to August 2009 at IITR.

* Number of Theses Guidance:–

  Ph.D. 12 completed and 8 in progress

  M.Tech. $\approx$ 39 completed and 3 in progress

  B.Tech. $\approx$ 56 completed and 6 in progress

Publications

Total: $\approx$ 294

Books: 4 for Springer–Verlag, Berlin–Heidelberg, Germany

Journals: $\approx$ 87

Conferences: $\approx$ 191

Technical Reports: $\approx$ 12

Academic, R&D, and Industrial Links

India :- DRDO (MTRDC, LRDE, DLRL, RCI), CSIR (CEERI), BEL, IIT-BHU, DAE (RR-CAT, IPR)

Abroad :- KIT (IHM, IHE), Germany; FIR Center, Fukui University (Japan), MMPL, Oulu University (Finland)

Membership of Professional Bodies

Fellow :- IET (UK), IETE (India), IE (India), VEDA (India)

Senior Member :- IEEE (USA)

Member :- EuMA (EU), PSSI (India)

Outlook

– To excel in the field of High Power Millimeter & THz Wave Engineering (sources and components), Metamaterials, Fractals, Planar Antennas, Filters, Microwave Integrated Circuits, and Soft-computing in Microwave Domain.

Detailed Curriculum Vitae

Professor Dr. M.V. Kartikeyan

FIETE; FIE; FIET; SMIEEE; Humboldtian

Department of Electronics & Communication Engineering

Millimeter/THz Wave Laboratory

Indian Institute of Technology Roorkee, Roorkee 247 667, Uttarakhand, India

Voice : 00 91 1332 – 28 5727/6453 (O), – 28 5513 (R), Fax : – 28 5368, Email : kartik@iitr.ac.in / kartik@ieee.org

Education

* Ph.D. in 1992 from the Institute of Technology, Banaras Hindu University, Varanasi, India.

* Master of Science in 1985 from the Banaras Hindu University, Varanasi, India.

Areas of Research Interest

– Millimeter and THz Wave Engineering (Electron Cyclotron Masers and other High Power Devices, allied sub-systems and quasi-optical transmission Components), Metamaterials, Fractals, Planar Antennas, Filters, Microwave Integrated Circuits, and Soft-computing in Microwave Domain.

Professional Experience

Academics and R&D:– Around 28 years of experience in reputed Academic and R&D Institutions.

* Worked as the Head, Department of Electronics & Communication Engineering, Indian Institute of Technology, Roorkee (IITR), India (May 2013-February 2016).

* Worked as the Head, Institute Computer Center, Indian Institute of Technology, Roorkee (IITR), India (January 2012-April 2014)

* Full–Professor since September 2009 in the Department of Electronics and Communication Engineering, Indian institute of Technology, Roorkee (IITR), India.

* Worked as an Associate Professor from July 2003 to August 2009 at IITR.
* Worked as Research Scientist at the Institut für Hochleistungsimpuls– und Mikrowellentechnik, Karlsruhe Institute of Technology, Karlsruhe, Germany, from July 2001 to June 2003 (with a special bequest of the *AvH Stiftung, Bonn, Germany*, for *long–term cooperation*).
* Worked as a Research Scientist in Central Electronics Engineering Research Institute, Pilani, India, from January 1989 to June 2001.

Work Experience in Various R&D Projects :–

* Design and Development of Planar Antennas and Filters for Wireless Communications (July 2003 – till date at IITR, Roorkee, India).
* Investigations on Metamateials, Defected Ground Structures, and Fractals for Planar Microwave Circuits/Antennas (July 2003 – till date at IITR, Roorkee, India).
* Design of Specific Gyrotrons for thermonuclear fusion reactors and other ISM Applications (July 2003 – till date at IITR, Roorkee, India).
* Design and development of high power gyrotrons for plasma fusion and industrial applications (Jan–Sept 1996, Dec. 1998 – Jan. 2000, July 2001–June 2003, at KIT, Karlsruhe, Germany).
* Design and development of specific high power microwave sources and allied Transmission Line Components for Accelerators and Synchrotron Radiation Sources (Jan. 1989 – June 2001, CEERI, Pilani, India).

S.No.	Designation	Organization with Address	Position	Duration
1.	Professor	IIT-Roorkee	Professor Head, Dept. ECE Head, ICC Chairman, Inst. Library Adv. Cmt. Associate Dean Faculty Affairs	09/2009 - Till Date 05/2013-02/2016 01/2012-04/2014 05/2016 - Till Date 04/2017 - Till Date
2.	Associate Professor	IIT-Roorkee	Associate Professor	07/2003-09/2009
3.	Visiting Scientist	KIT/IHM Karlsruhe Germany	AvH Fellow Hildegard-Maier Fellow (AvH Bequest) CSIR-DLR Fellow	07/2001-06/2003 10/1998-01/2001 01/1996-09/1996
4.	Scientist	CEERI-Pilani	Scientist (B&C)	01/1989-06/2001

Grant–in–aid Sponsored Projects (as Principal/Co– Investigator):–

Year	Sponsoring Agency	External Cash Flow	PI or Co–PI	Status
1991–99	DAE	≈ Rs. 290 Lacs	Co–PI	Completed
2000–01	DAE	≈ Rs. 100 Lacs	Co–PI	Completed
2004–07	MHRD	Rs. 8 Lacs	PI	Completed
2006–15	DST	Rs. 84.60 Lacs	PI	Completed
2014–15	DRDO	Rs. 9.60 Lacs	PI	Completed
2015–18	DST	Rs. 380.00 Lacs	PI/Coordinator	FIST Grant
2016–18	DRDO	Rs. 30.00 Lacs	PI	On–going
2016–19	DRDO	Rs. 59.75 Lacs	Co–PI	On–going
2017–20	DRDO	Rs. 36.10 Lacs	PI	On–going
2017–20	DST	Rs. 40.49 Lacs	Co–PI	On–going
2017–18	RICET	Rs. 16.00 Lacs	PI	On–going
2017–	MHRD (SMILE)	Rs. 208.73 Lacs	Co-PI	Awarded

Teaching Experience (Courses Offered and Research Guidance) :–

List of courses offered :–

- Computational Techniques for Microwaves
- RF & Microwave MEMS
- RF Receiver Design for Wireless Applications
- Microwave & Millimeter Wave Integrated Circuits
- Fiber Optic Systems
- Advanced Microwave Engineering
- Microwave Theory & Techniques
- Antennas & Wave Propagation
- Antenna Theory & Design
- Basic Electronics (Devices & Circuits)
- Microwaves (Laboratory)
- Advanced Microwaves (Laboratory)
- Digital Switching Circuits (Laboratory)
- Basic Electronics (Laboratory)

Research Guidance:–

⇒ Ph.D. (s) Completed: 12 (details given below)

(i) Sukwinder Singh (ECE/2017): *Analysis of coaxial cavity with triangular corrugations on the insert for gyrotrons.*

(ii) Gaurav Singh Baghel (ECE/2017): *Investigations on multi-frequency high power gyrotron oscillators.*

(iii) Leeladhar Malvya (ECE/2017): *Some studies on MIMO antennas with diversity techniques for wireless applications*; Co-supervisor: Dr. R. Panigrahi (IITR)

(iv) Jagannath Malik (ECE/2016): *Compact UWB and MIMO antennas for high-speed communications.*

(v) Amanpreet Kaur (ECE/2016, External Candidate from Thaper Univeersity): *Studies on stacked patch antennas for WLAN applications*; Co-supervisor: Prof. Rajesh Khanna (Thaper University)

(vi) Pravin Prajapati (ECE/2015): *Investigations on polarization agile planar antennas with defected ground structures*; Co-supervisor: Dr. A. Patnaik (IITR)

(vii) Jaswinder Kaur (ECE/2014, External Candidate from Thaper Univeersity): *Multi-frequency wideband microstrip patch antenna for wireless applications*; Co-supervisor: Prof. Rajesh Khanna (Thaper University)

(viii) Arjun Kumar (ECE/2014): *Investigation on Microstrip Filters with Defected Ground Structure.*

(ix) Ashwini Kumar Arya (ECE/2012): *Design Study of Specific Microstrip Antennas with Defected Ground Structure*; Co-supervisor: Dr. A. Patnaik (IITR)

(x) Narendra Chauhan (ECE/2009): *Soft Computing for Design Applications of Microwave Domain*; Co-supervisor: Dr. Ankush Mittal (IITR)

(xi) Basudeb Ghosh (ECE/2009): *Investigations on Fractal Apertures in Conducting Screens, Waveguides and Cavities*; Co-supervisor: Prof. SN Sinha (IITR)

(xii) K. Solomon Raju (ECE/2008): *System Level Architectures and Optimal Mapping for Reconfigurable Computing*; Co-supervisors: Prof. RC Joshi (IITR) and Dr. Chandra Sekhar (CSIR-CEERI)

⇒ Ph.D. (s) in progress: 08 (broad topics given below)

(i) Kumar Goodwill (ECE): *Modulated metasurfaces for printed antennas.*

(ii) S. Yuvaraj (ECE): *Coaxial cavity with triangular corrugated insert for multi-megawatt class gyrotrons.*

(iii) Savitesh M. Sharma (ECE): *FinFETs for RF applications;* Co-supervisor: Dr. Sudeb Dasgupta (IITR).

(iv) Sambaiah Pelluri (ECE): *Investigations on multi-functional microstrip filters.*

(v) Alok Mishra (ECE): *Electron optical system for specific high power gyrotrons;* Co-supervisor: Dr. Anirban Bera, CSIR-CEERI, Pilani.

(vi) Raj Kumar (ECE): *Phased array antennas for communications.*

(vii) Tejas Laheri (ECE): *Investigations on specific coupled resonator microstrip filters.*

(viii) Surbhi Adya (ECE): *Design of second harmonic gyrotrons for ISM applications.*

⇒ M.Tech. (s) Completed: 39 (details given below)

(1) Anupam Mullick (ECE/2017): *Shared aperture antennas.*

(2) Paranayan Manna (ECE/2017): *Design of UWB monopole antenna with multiple band notches.*

(3) Neha Singh (ECE/2017): *High impedance Surfaces for antenna design.*

(4) Nupur Sood (ECE/2017): *Metamaterial and metasurfaces for antenna design.*

(5) Tejas Laheri (ECE/2016): *The multi-band filter design.*

(6) Priyanka Bansal (ECE/2016): *Design of MIG and RF behavior of megawatt class coaxial cavity gyrotron.*

(7) Diksha Nagpal (ECE/2016): *Design and analysis of ultra-wideband vivaldi antenna.*

(8) Marampally Saikiran (ECE/2015): *Improving the performance of LC VCO using threshold voltage control techniques.*

(9) M. Srinivasulu (ECE/2015): *Circularly polarized fractal antennas.*

(10) Aditi Purwar (ECE/2015): *Design Studies on MIMO antenna for LTE applications.*

(11) Alka (ECE/2014): *Investigations on a 95 GHz, 100 kW second harmonic gyrotron.*

(12) Ravi Kumar Dhakad (ECE/2014): *Studies on a 170 GHz megawatt class CW gyrotron operating in the* $TE_{28,12}$ *mode.*

(13) Veenu Kamra (ECE/2014): *Study and analysis of parasitic oscillations in gyrotrons* (Co-supervisor: Prof. John Jelonnek, KIT, Germany).

(14) GGK Murthy (ECE/2014): *Study and design of circularly polarized antenna for wireless applications.*

(15) Vishal Vasishta (EE/2014): *Design, analysis and fabrication of dielectric resonator.*

(16) Aswini Sawant (ECE/2013): *Design study of a 42/84 GHz, 500 kW CW dual frequency regime gyrotron.*

(17) Prerit Jain (ECE/2013): *Design studies of a 30 GHz, 30 kW, CW decond harmonic gyrotron.*

(18) Divya Agarwal (ECE/2013): *Design and evaluation of compact planar anatennas utilizing pattern diversity for MIMO wireless applications.*

(19) Ramesh Patel (Physics/2013): *PIFA antenna for wireless applications* (Co-supervisor: Prof. R. Nath, IITR).

(20) Anish Goel (ECE/2013): *Design and optimization studies of bandstop filters unsing specific DGS structures for WLAN applications.*

(21) V. Paritosh Kumar (ECE/2013): *Design of ultra wide band antenna with tunable notch.*

(22) Parth Kalaria (ECE/2012): *Design studies of a 170 GHz, 1.0-1.5 MW CW gyrotron for plasma heating.*

(23) Nischey Grover (ECE/2012): *Studies on planar antennas utilizing pattern diversity for MIMO wireless applications.*

(24) P. Vamshi Krishna (ECE/2011): *Conceptualization of a 95 GHz, 100 kW CW gyrotron.*

(25) Jagannath Malik (ECE/2011): *Design studies of microstrip patch antennas with specific metamaterial structures for WLAN applications.*

(26) Harshvardhan Tiwari (ECE/2010): *Studies on specific stacked microstrip patch antennas for dual-band applications.*

(27) Ankur Aggarwal (ECE/2010): *Study of fractal patch antennas for wireless application.*

(28) Divya Goel (ECE/2010): *Multi-objective optimization using evolutionary algorithms for computation intensive applications.*

(29) Ragini Jain (ECE/2010): *Design of a 60 GHz, 100 kW CW gyrotron for plasma diagnostics.*

(30) Arun Kumar Sowpati (ECE/2009): *Performance of printable antennas with different conductor thickness.*

(31) Satya Priya Singh (ECE/2009): *Studies on microstrip patch antenna using defected ground structures for wireless applications.*

(32) Pankhuri (ECE/2009): *Studies on full-ψ and half-ψ microstrip patch antennas for specific dual band WLAN application.*

(33) Vivek Gupta (ECE/2008): *Studies on microstrip patch antennas with defected ground structure.*

(34) Sangam Pal Gautam (ECE/2008): *Studies on specific microstrip antenna for WLAN applications.*

(35) Prakhya Avinash (ECE/2008): *Study and design of UWB M-shaped monopole and Vivaldi antennas for wireless applications.*

(36) K. Swathi (ECE/2007): *Design of aperture coupled microstrip antenna with L-shaped coupling slot for wideband circular polarization.*

(37) Kshitiz Agarwal (ECE/2006): *Design of a dual feed stacked patch circularly polarized microstrip antenna using a feed system on opposite side of ground plane* (Co-supervisor: Prof. NK Agarwala, IITR).

(38) Purnachandrarao Gugulotu (ECE/2006): *Design of multiple beam forming network with E-shaped microstrip patch antenna for switched beam antenna systems* (Co-supervisor: Prof. NK Agarwala, IITR).

(39) Arun Kumar (ECE/2005): *Studies on stacked patch aperture coupled circularly polarized microstrip antenna with slits.*

$\Rightarrow$ M.Tech. (s) in progress: 03

Academic, R&D, and Industrial Links

- Institute for Plasma Research (IPR), Gandhinagar, India.
- Central Electronics Engineering Research Institute (CEERI), Pilani, India.
- Microwave Tubes Research and Development Center (DRDO), Bangalore, India.
- Bharat Electronics (formerly BEL), Bangalore, India.
- IHE, KIT, Karlsruhe, Germany.

– Microelectronics and Material Physics Laboratory, Uni. of Oulu, Finland.

– Inst. of Pulsed Power & Microwave Technology, KIT, Karlsruhe, Germany.

– Dept. of Engineering, Fukui University, Japan.

International Research Awards for Professional Recognition

Recipient of the ***Hildegard–Maier Research Fellowship for Electrical Sciences by the Alexander von Humboldt Foundation*** (from December 1998 to January 2000).

Recipient of the ***Alexander von Humboldt Fellowship*** (from July 2001 to June 2003).

Recipient of the ***Alexander von Humboldt Fellowship*** under re-invitation programme (June/July 2011 and June/July 2012).

Membership of Professional Bodies

– Fellow, IET (Inst. of Engineering and Technology, UK) # 1100390265

– Fellow Life, IETE (Inst. Electronics and Telecom. Engineers, India) # F138559

– Fellow Life, IE (Inst. of Engineers, India) # F109688-1

– Fellow Life, VEDAS (Vac. Elec. Devices & Applications Society, India) # F050L

– Senior Member, IEEE (USA) # 41584566

– Member, European Microwave Association (EuMA) # AM2797

– Member Life, PSSI (Plasma Science Society, India) # LM-648

Other Significant Contributions

– Member, Editorial Board, Journal of Infrared, Millimeter and Terahertz Waves (a Springer-Nature Engineering Journal with IF $\approx$ 2.54)

– Reviewer, IEEE Transactions (TED, MTT, PS)

– Reviewer, J. Infrared, Millimeter & Terahertz Waves

– Reviewer, EuMA Journal on Microwave and Wireless Technologies

– Progress in Electromagnetics Research (PIER, Academy of Electromagnetics)

– Indian J. IETE (Tylor & Francis Journal)

Outlook

– To excel in the field of High Frequency Engineering for clean energy, communications and for specific ISM applications.

List of Publications

Books

(B1) **M.V. Kartikeyan**, E. Borie, and M. Thumm, "*Gyrotrons – High Power Microwave and Millimeter Wave Technology*," Springer–Verlag, Berlin–Heidelberg, Germany, 2004 (*ISBN 3–540–40200–4*).

(B2) N.C. Chauhan, **M.V. Kartikeyan**, A. Mittal, "*Soft Computing Methods for Microwave and Millimeter Wave Design Problems*," Studies in Computational Intelligence Series, Springer–Verlag, Berlin–Heidelberg, Germany, 2012 (*ISBN 978–3–642–25562–5*).

(B3) Basudeb Ghosh, Sachendra N. Sinha, **M.V. Kartikeyan**, "*Fractal Apertures in Conducting Screens, Waveguides, and Antennas: Analysis and Design*," Springer Series in Optical Sciences, Vol. 187, Springer–Verlag, Berlin–Heidelberg, Germany, 2014 (*ISBN 978–3–319–06534–2*).

(B4) Jagannath Malik, Amalendu Patnaik, **M.V. Kartikeyan**, "*Compact antennas for high data rate communications: Ultra-wideband (UWB) and Multiple-input-multiple-output (MIMO) technology*," Series: Springer Topics in Signal Processing, Vol. 14, 2018 (*ISBN 978–3–319–63174–5*).

Journals

(J1) S. Yuvaraj, **M.V. Kartikeyan**, Manfred Thumm, "*RF Behavior of a 220/251.5 GHz, 2MW, triangular corrugated coaxial cavity gyrotron*," IEEE Trans. Electron Devices, vol. 64, no. 10, pp. 4287-4294, October 2017.

(J2) Sukhwinder Singh, **M.V. Kartikeyan**, "*Full wave analysis of plasma loaded coaxial gyrotron cavity with triangular corrugations on the insert*," IEEE Trans. Electron Devices, vol. 64, no. 5, pp. 2369-2375, May 2017.

(J3) Leeladhar Malviya, Rajib K. Panigrahi, **M.V. Kartikeyan**, "*MIMO antennas with diversity and mutual coupling reduction techniques: a review*," International Journal of Microwave and Wireless Technologies, DOI:10.1017/S1759078717000538, pp. 1-18, May 2017.

(J4) Gaurav Singh, **M.V. Kartikeyan**, Manfred Thumm, "*A 220/247.5/275 GHz, 1.0 MW, triple frequency regime gyrotron*," IEEE Trans. Electron Devices, vol. 64, no. 4, pp. 1774-1780, April 2017.

(J5) Sukwinder Singh, **M.V. Kartikeyan**, "*Full wave analysis of coaxial gyrotron cavity with triangular corrugations on the insert*," IEEE Trans. Electron Devices, vol. 64, no. 4, pp. 1756-1762, April 2017.

(J6) Leeladhar Malviya, Rajib K. Panigrahi, **M.V. Kartikeyan**, "*A low profile planar MIMO antenna with polarization diversity for LTE 1800/1900 applications*," Microwave and Optical Technology Letters, DOI:10.1002/mop.30329, Vol. 59, Issue 3, pp. 533-538, March 2017.

(J7) Savitesh M. Sharma, Sudeb Dasgupta, **M.V. Kartikeyan**, "*Successive Conformal Mapping Technique to extract Inner Fringe Capacitance of Underlap DG-FinFET and its variations with Geometrical Parameters*," IEEE Trans. Electron Devices, vol. 64, no. 2, pp. 384-391, February 2017.

(J8) Arjun Kumar, Ramesh Patel, **M.V. Kartikeyan**, "*Investigation on microstrips filters with CSRR defected ground structure*," Advanced Electromagnetics, vol.5, no.2, August 2016.

(J9) Arjun Kumar, **M.V. Kartikeyan**, "*Design and realization of microstrip filters with new defected ground structure (DGS)*," Eng. Sci. Tech., Int. J., http://dx.doi.org/10.1016/ j.jestch.2016.10.015, 2016.

(J10) Gaurav Singh Baghel, Stefan Illy, **M.V. Kartikeyan**, "*I/O System for a 77/154 GHz, 0.5 MW, dual regime gyrotron*," IEEE Trans. Electron Devices, vol. 63, no.11, pp. 4459-4465, November 2016.

(J11) S. Singh **M. V. Kartikeyan**, "*Analysis of plasma-loaded noncorrugated and triangular corrugated coaxial cavity*," IEEE Trans. Electron Devices, vol. 63, no. 10, pp. 4060-4066, October 2016.

(J12) Pravin R. Prajapati, Amalendu Patnaik, **M.V. Kartikeyan**, "*Improved DGS parameter extraction method for the polarization purity of circularly polarized microstrip antenna*," International Journal of RF and Microwave Computer-Aided Engineering (published online, DOI: 10.1002/mmce.21029), August 2016.

(J13) Gaurav Singh Baghel, **M.V. Kartikeyan**, "*Extended RF behavior of a 77/154 GHz, 0.5 MW, continuous wave gyrotron*," IEEE Trans. Electron Devices, vol. 63, no. 6, pp. 2538-2543, June 2016.

(J14) Leeladhar Malviya, Rajib K. Panigrahi, **M.V. Kartikeyan**, "*A 2×2 Dual-band MIMO antenna with polarization diversity for wireless applications*," Progress In Electromagnetics Research C, vol. 61, pp. 91-103, January 2016.

(J15) Jagannath Malik, Diksha Nagpal, **M.V. Kartikeyan**, "MIMO antenna with omnidirectional pattern diversity," IET Electronics Letters, vol. 52, no. 2, pp. 102-104, 2016.

(J16) Jaswinder Kaur, Rajesh Khanna, **M.V. Kartikeyan**, "*Novel Dual Band Microstrip Monopole Antenna With Defected Ground Structure for WLAN/IMT/ Bluetooth/WiMAX Applications*," International Journal of Microwave and Wireless Technologies, vol. 6, no. 1, pp. 93-100, 2014.

(J17) Jaswinder Kaur, Rajesh Khanna, **M. V. Kartikeyan**, "*Optimization and Development of O-Shaped Triple band Microstrip Patch Antenna for Wireless Communication Applications*," IETE Journal of Research, vol. 60, no. 2, pp. 95-105, 2014.

(J18) Amanpreet Kaur, Rajesh Khanna, **M.V. Kartikeyan**, "*A multilayer dual wideband circularly polarized microstrip antenna with DGS for WLAN/ Bluetooth/ ZigBee/ Wi-Max/ IMT band applications*," International Journal of Microwave and Wireless Technologies, pp. 1-9, doi: 10.1017/S1759078715001294, Published on line: 25 August 2015.

(J19) Amanpreet Kaur, Rajesh Khanna, **M.V. Kartikeyan**, "*A stacked sierpinski gasket fractal antenna with a defected ground structure for UWB/WLAN/ RADIO astronomy/STM Link applications*," Microwave and Optical Technology Letters, vol. 57, no. 12, pp. 2786-2792, December 2015.

(J20) Sukwinder Singh, **M.V. Kartikeyan**, "Analysis of a triangular corrugated coaxial cavity for megawatt class gyrotron," IEEE Trans. Electron Devices, vol. 62, no. 7, pp. 2333-2338, July 2015.

(J21) Jagannath Malik, **M.V. Kartikeyan**, "*Transient response of dual band-notched ultra-wideband antenna*," Int. J. of Microwave and Wireless Technologies, vol. 7, no. 1, pp. 61-67, February 2015.

(J22) P. R. Prajapati, G. G. K. Murthy, A. Patnaik, **M.V. Kartikeyan**, "*Design and testing of a compact circularly polarized microstrip antenna with fractal defected ground structure for L-band applications*," IET Microwaves, Antennas and Propagation, vol.9, no. 11, pp. 1179-1185, 2015.

(J23) Pravin R. Prajapati, A. Patnaik, and **M.V. Kartikeyan**, "*Design and Characterization of an Efficient Multi-layered Circularly Polarized Microstrip Antenna*," International Journal of Microwave and Wireless Techniques, Cambridge Univ. Press, DOI: 10.1017/S1759078715000549, March 2015.

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(C44) Parth C. Kalaria, **M.V. Kartikeyan**, "*Design studies of quasi-optical launcher for a 170 GHz, 1.5 MW CW gyrotron for ITER project*," National Conference on Vacuum Electronic Devices and Applications (VEDA-2012), 21-24 September 2012, Pilani, India.

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(C51) Jagannath Malik, Ramesh Patel, **M.V. Kartikeyan**, R.Nath, "*Novel compact split ring resonator antenna for L-band (1.28 GHz) remote sensing applications*," National Conference on Vacuum Electronic Devices and Applications (VEDA-2012), 21-24 September 2012, Pilani, India.

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(C60) Ashwini K. Arya, A. Patnaik, **M.V. Kartikeyan**, "*A Compact Array with Low Mutual Coupling using Defected Ground Structures*," IEEE Applied Electromagnetics Conference (AEMC 2011), 18-22 December 2011, Kolkata, India.

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(C65) Arjun Kumar, Ashwini K. Arya, **M. V. Kartikeyan**, "*Design of Dual Band Bandpass Filter with Circular shaped DGS Array*," International Conference on Microwaves, Antenna, propagation & Remote Sensing (ICMARS-2011), 18-22 December 2011, Jodhpur, India (Communicated).

(C66) Arjun Kumar, Ashwini K. Arya, **M. V. Kartikeyan**, "*Design of Microstrip Narrow Bandpass filter with hexagonal dumbbell shaped DGS for WLAN Applications*," International Conference on Microwaves, Antenna, propagation & Remote Sensing (ICMARS-2011), 18-22 December 2011, Jodhpur, India.

(C67) Parth C. Kalaria, **M. V. Kartikeyan**, M. Thumm, "*Design Considerations of a 170 GHz, 0.5 MW, CW Gyrotron*," International Conference on Microwaves, Antenna, propagation & Remote Sensing (ICMARS-2011), 18-22 December 2011, Jodhpur, India.

(C68) Parth C. Kalaria, **M. V. Kartikeyan**, M. Thumm, "*Design Studies of Quasi-optical Launcher of a 170 GHz, CW Gyrotron for ECRH Application*," International Conference on Microwaves, Antenna, propagation & Remote Sensing (ICMARS-2011), 18-22 December 2011, Jodhpur, India.

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(C70) K. Goodwill, Parth C. Kalaria, A. Patnaik, **M. V. Kartikeyan**, "*Dual Band-High Gain-large Bandwidth at High Frequency Microstrip patch Antenna*,"

International Conference on Microwaves, Antenna, propagation & Remote Sensing (ICMARS-2011), 18-22 December 2011, Jodhpur, India.

(C71) Chinmay A. Jain, Ankit Verma, Ashish Kumar, P. Vamshi Krishna, **M.V. Kartikeyan**, S. Illy, E. Borie, M. Thumm, "*Design of triode–type magnetron injection gun for 460 GHz, 50–100 W, gyrotron for medical spectroscopy*," 36th International Conference on Infrared, Millimeter, and THz Waves (IRMMW-THz 2011), October 2–7, 2011, Houston, US.

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(C73) **M.V. Kartikeyan**, E. Borie, M. Thumm, "*Recent Results in Collaborative Studies on the Design of Application Specific Gyrotrons*," Int. Vac. Elec. Conference (IVEC–2011), February 21–24, 2011, Bangalore, India.

(C74) P. Vamshi Krishna, **M.V. Kartikeyan**, M. Thumm, "*Mode Selection and Cavity Design Studies for a 95 GHz, 100 kW, CW Gyrotron*," Int. Vac. Elec. Conference (IVEC–2011), February 21–24, 2011, Bangalore, India.

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(C78) Nischey Grover, Satish Gajawada, **M.V. Kartikeyan**, "*Design Optimization of Non Linear Tapers for High Power Gyrotrons Using Hybrid Space Mapping Techniques*," Int. Vac. Elec. Conference (IVEC–2011), February 21–24, 2011, Bangalore, India.

(C79) Ashwini K. Arya, A. Patnaik, **M.V. Kartikeyan**, "*Design Study of some specific DGS slots and their integration with microstrip stacked patch anten-*

nas," Int. Conf. on Microwaves, Antenna, Propagation & Remote Sensing, (ICMARS–2010), December 14–17, 2010, Jodhpur, India.

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(C81) Arjun Kumar and **M.V. Kartikeyan**, "*A Novel Compact Band Pass Edge Coupled Microstrip Filter with DGS*," Int. Conf. on Microwaves, Antenna, Propagation & Remote Sensing, (ICMARS–2010), December 14–17, 2010, Jodhpur, India.

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(C83) Jagannath Malik and **M.V. Kartikeyan**, "*Design Study of Proximity Coupled Broadband Triangular Patch Antenna*," Int. Conf. on Microwaves, Antenna, Propagation & Remote Sensing, (ICMARS–2010), December 14–17, 2010, Jodhpur, India.

(C84) **M.V. Kartikeyan**, "*Studies on specific gyrotrons at IITR – A close perspective*,"Nat. Conf. Vac. Elec. Devices and Applications, Moradabad, November 18–19, 2010.

(C85) Divya Goel, **M.V. Kartikeyan**, and Rajdeep Niyogi, "*Optimal design of Microstrip Antenna*," International Conference on Advances in Communication Network and Computing (CNC 2010), October 4–5, 2010, Calicut, India.

(C86) **M.V. Kartikeyan**, "Gyrotrons: *Millimeter wave sources for thermonuclear fusion reactors and other ISM applications*," Proc. National Conferences on Recent Trends in Microwave & Millimeter Wave Technologies–2010, October 4–5, 2010, Dehradun, India.

(C87) Arjun Kumar, A.K.Arya, **M.V. Kartikeyan**, Rashid Mahmood, "Study of DGS Low Pass Filter using DGS Array," Proc. National Conferences on Recent Trends in Microwave & Millimeter Wave Technologies–2010, October 4–5, 2010, Dehradun, India.

(C88) J.P.Chauhan, D.S. Nagarkoti, R. Gauri, **M.V. Kartikeyan**, "Design and Simulation of Broadband Low Noise Figure Amplifier for Base Station Wireless

Applications Using Hetro–Junction Field Effect Transistor," Proc. National Conferences on Recent Trends in Microwave & Millimeter Wave Technologies–2010, October 4–5, 2010, Dehradun, India.

(C89) Ragini Jain, **M.V. Kartikeyan**, "Design Studies of a 100 kW, 60 GHz CW Gyrotron for Plasma Diagnostics," IRMMW–THz Conference, Rome, Italy, September 2010.

(C90) Ankur Aggarwal, **M.V. Kartikeyan**, "Design of Sierpinski Carpet Antenna using two different feeding mechanisms for WLAN applications," IRMMW–THz Conference, Rome, Italy, September 2010.

(C91) Ashwini K. Arya, Amalendu Patnaik, **M.V. Kartikeyan**, "On the Size Reduction of Microstrip Antennas with DGS," IRMMW–THz Conference, Rome, Italy, September 2010.

(C92) Harshvardhan Tiwari, **M.V. Kartikeyan**, "*Design studies of stacked U–slot microstrip patch antenna for dual–band operation*," IRMMW–THz Conference, Rome, Italy, September 2010.

(C93) Divya Goel, **M.V. Kartikeyan**, Rajdeep Niyogi, Ankush Mittal, "Evolutionary Algorithms for the Design of Specific Microwave/Millimeter Wave Components," IRMMW–THz Conference, Rome, Italy, September 2010.

(C94) Ragini Jain, **M.V. Kartikeyan**, "Mode competition and cavity design of a 60 GHz, 100 kW, CW gyrotron," Nat. Conf. on Advances in Microwave Communication, Devices and Applications, 16–17 February 2010, Jaipur, India.

(C95) Ragini Jain, Jagadish C. Mudiganti, **M.V. Kartikeyan**, "Initial Design Studies of a 60 GHz, 100 kW Gyrotron for Plasma Diagnostics," Nat. Sym. on Vacuum Tech. and its Applications to Electronic Devices and Systems (IVSNS 2009), November 11-13, 2009, CEERI, Pilani, India.

(C96) Jagadish C. Mudiganti, **M.V. Kartikeyan**, "*Design of Magnetron Injection Guns for Application Specific Gyrotrons: Particle Studio Simulations*," Nat. Sym. on Vacuum Tech. and its Applications to Electronic Devices and Systems (IVSNS 2009), November 11-13, 2009, CEERI, Pilani, India.

(C97) Ashwini K. Arya, **M.V. Kartikeyan**, A. Patnaik, "*Studies on Specific Microstrip Antenna with Defected Ground Structures for Wireless Communications*" Nat. Sym. on Vacuum Tech. and its Applications to Electronic Devices and Systems (IVSNS 2009), November 11-13, 2009, CEERI, Pilani, India.

(C98) Ragini Jain, **M.V. Kartikeyan**, M. Thumm, "*Design studies of a quasi–optical launcher for a 170 GHz, 200–250 kW gyrotron*," 34th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz 2009), Busan, Korea, September 21–25, 2009.

(C99) **M.V. Kartikeyan**, Jagadish C. Mudiganti, E. Borie, M. Thumm "*Resonator studies of a 170 GHz, 200-250 kW, long–pulse gyrotron*," 34th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz 2009), Busan, Korea, September 21–25, 2009.

(C100) Jagadish C. Mudiganti, **M.V. Kartikeyan**, M. Thumm, "*Design of magnetron injection guns - A 3D simulation approach*," 34th International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz 2009), Busan, Korea, September 21–25, 2009.

(C101) **M.V. Kartikeyan**, "*Studies on specific high power gyrotrons at IITR – Recent results and future plans*," Proc. 5th IAEA Technical Meeting on ECRH Physics and Technology for Large Fusion Devices, 18–20 February 2009, Gandhinagar, India.

(C102) S. Arun Kumar, **M.V. Kartikeyan**, "*Proximity coupled dual frequency microstrip antenna for WLAN*," National Symposium on Vacuum Elect. Devices & Applications (VEDA–2009), IT–BHU, Varanasi, January 8–10, 2009.

(C103) N. C. Chauhan, **M.V. Kartikeyan**, A. Mittal, "*Design of critical output components of high power gyrotrons using particle swarm optimization*," National Symposium on Vacuum Elect. Devices & Applications (VEDA–2009), IT–BHU, Varanasi, January 8–10, 2009.

(C104) T. J. Nagalakshmi, **M.V. Kartikeyan**, "*Initial design studies of a 170 GHz, 250 kW, CW gyrotron*," National Symposium on Vacuum Elect. Devices & Applications (VEDA–2009), IT–BHU, Varanasi, January 8–10, 2009.

(C105) Ragini Jain, Arun Kumar, **M.V. Kartikeyan**, "*Design studies of a quasi-optical launcher for a 127.5 GHz, 1.0-1.3 MW, long-pulse start-up gyrotron for ITER*," National Symposium on Vacuum Elect. Devices & Applications (VEDA–2009), IT–BHU, Varanasi, January 8–10, 2009 (***Awarded Best Student Paper to Ms. Ragini Jain***).

(C106) Ashwini K. Arya, **M.V. Kartikeyan**, A. Patnaik, "*Neural network model for analysis of DGS structure*," National Symposium on Vacuum Elect. Devices & Applications (VEDA–2009), IT–BHU, Varanasi, January 8–10, 2009.

(C107) Jagadish C. Mudiganti, M.V. Kartikeyan, "A 3D Simulation of Triode Type Magnetron Injection Gun for 42 GHz, 200 kW CW Gyrotron," National Symposium on Vacuum Elect. Devices & Applications (VEDA–2009), IT–BHU, Varanasi, January 8–10, 2009.

(C108) **M. V. Kartikeyan**, "Recent progress on the design studies of high power gyrotrons at IITR (invited Talk)," National Symposium on Vacuum Elect. Devices & Applications (VEDA–2009), IT–BHU, Varanasi, January 8–10, 2009.

(C109) N. C. Chauhan, B. R. Vasista, M. S. Reddy, **M.V. Kartikeyan**, A. Mittal, "*Modified bacterial foraging optimization and its application for the design of a nonlinear taper*," Int. Conf. Advances in Computing Technologies (ICACT 2008), Hyderabad, December 26–27, 2008.

(C110) Basudeb Ghosh, Sachendra N. Sinha, **M.V. Kartikeyan**, "*Fractal Apertures in Waveguide and Conducting Screens*", Proceedings of TENCON 2008, November 2008, Uni. of Hyderabad, India.

(C111) N. Chauhan, **M.V. Kartikeyan**, L.M. Joshi, A. Mittal, "*Design of RF window using multi–objective particle swarm optimization*," Int. Conf. Recent Advances in Microwave Theory and Applications (MICROWAVE-08), 21–24 November 2008, Department of Physics, Uni. of Rajasthan Jaipur, India.

(C112) Ashwini K. Arya, **M.V. Kartikeyan**, A.Patnaik, "*Efficiency Enhancement of Microstrip Patch Antenna with Defected Ground Structure*," Int. Conf. Recent Advances in Microwave Theory and Applications (MICROWAVE-08), 21–24 November 2008, Department of Physics, Uni. of Rajasthan Jaipur, India.

(C113) B. Ghosh, S.N. Sinha, **M.V. Kartikeyan**, "*Fractal Apertures in Waveguides and Conducting Screens*," TENCON 2008, Uni. Hyderabad, November 18-21, 2008.

(C114) **M.V. Kartikeyan**, "*Close perspective of a successful collaboration*," Colloquium for Humboldt Fellows and Awardees in the Engineering Sciences in India, New Delhi, 31 October 31 – 2 November, 2008, India.

(C115) **M.V. Kartikeyan**, E. Borie, G. Gantenbein, B. Piosczyk, M.K. Thumm, "*Studies on a 170 GHz, 1.0–1.3 MW, CW conventional cavity gyrotron*," 33rd IRMMW–THz Conference, Cal. Tech., California–US, September 15–19, 2008.

(C116) **M.V. Kartikeyan**, Arun Kumar, E. Borie, M.K. Thumm, "*Studies on a 127.5 GHz, 1.0–1.3 MW, CW Longpulse Start–up Gyrotron for ITER*," 35th IEEE Int. Conf. on Plasma Science (ICOPS2008), June 15–19, 2008, Karlsruhe, Germany.

(C117) **M.V. Kartikeyan**, Arun Kumar, E. Borie, S. Illy, B. Piosczyk, M.K. Thumm, "*Design Studies of a 42 GHz, 200–250 kW, CW/Longpulse Gyrotron*," 35th IEEE Int. Conf. on Plasma Science (ICOPS2008), June 15–19, 2008, Karlsruhe, Germany.

(C118) **M.V. Kartikeyan**, "*High power gyrotrons for thermonuclear fusion and other application*," Plenary talk delivered in the 22nd National Symposium on Plasma Science & Technology PLASMA–2007, 6–10 December 2007, Ahmedabad, India.

(C119) Arun Kumar, **M.V. Kartikeyan**, E. Borie, M.K. Thumm, "*Design Studies on a 1.0-1.3 MW, Long Pulse, Start–up Gyrotron for ITER*," 22nd National Symposium on Plasma Science & Technology PLASMA–2007, 6–10 December 2007, Ahmedabad, India.

(C120) Arun Kumar, S. Kamakshi, Narendra Chauhan, Stefan Illy, E. Borie, B. Piosczyk, **M.V. Kartikeyan**, M.K. Thumm, "*Design Studies of a 42 GHz, 200 kW, CW Gyrotron Operating in the* $TE_{0,3}$ *Mode with Axial Output Collection*," 22nd National Symposium on Plasma Science & Technology PLASMA–2007, 6–10 December 2007, Ahmedabad, India.

(C121) Narendra Chauhan, S. Kamakshi, Arun Kumar, Ankush Mittal, Dietmar Wagner, **M.V. Kartikeyan**, M.K. Thumm, "*Design and Optimization of Non–linear Tapers for High Power Gyrotrons*," 22nd National Symposium on Plasma Science & Technology PLASMA–2007, 6–10 December 2007, Ahmedabad, India.

(C122) Arun Kumar, **M.V. Kartikeyan**, E. Borie, M. Thumm, "*Studies on a 120 GHz, 1.0 MW, longpulse gyrotron for plasma start–up in ITER*," 32nd IRMMW–THz Conference, UK, September 2007.

(C123) **M.V. Kartikeyan**, E. Borie, M. Thumm, "*Design studies on a 110 GHz, 1.0–1.5 MW, CW gyrotron*," 32nd IRMMW–THz Conference, UK, September 2007.

(C124) B.Ghosh, Sachendra N. Sinha, **M.V. Kartikeyan**, "*Investigations on a Fractal shaped Aperture in a Rectangular Waveguide*", National Symposium on Antennas and Propagation, 14-16 December, 2006, CUSAT, Cochin, India (***Awarded Best Student Paper to Mr. B. Ghosh***).

(C125) Solomon Raju Kota, Archana Kokkula, Durga Toshniwal, **M.V. Kartikeyan**, R. C. Joshi and Chandra Shekhar "*Parameterized Module Scheduling Algorithm*

for Reconfigurable Computing Systems," 15th International Conference on Advanced Computing and Communications (ADCOM 2007), IIT Gowhathi, 18th -21st December 2007.

(C126) Solomon Raju Kota, Chandra Shekhar, **M.V. Kartikeyan**, and R.C. Joshi, "*System–Level Architectural Design of Reconfigurable Computing Systems: Issues and Solutions*," International Conference on Recent Advancements and Applications of Computer in Electrical Engineering (RACE-2007), March 24–25, 2007, Bikaner, Rajasthan, India (Accepted).

(C127) Solomon Raju Kota, Sridhar Kokkandla, R. S. Anand, Chandra Shekhar, **M.V. Kartikeyan**, and R.C. Joshi, "*Design of Parameterized Finite Impulse Response (FIR) Filter*," International conference on Intelligent Systems & Networks (IISN–2007), 23–25 Feb, 2007, Jagadri, Haryana, India

(C128) Solomon Raju Kota, Chandra Shekhar, **M.V. Kartikeyan**, R.C. Joshi, "*Behavioral modeling and Simulation of an instruction set of Reconfigurable Application Specific Instruction–set Processor for Software Defined Radio*," International Conference on Advances in Electronics & Communication Technology 15-16 December 2006, Nawanshahr, Punjab, India.

(C129) K. Solomon Raju, **M.V. Kartikeyan**, R. C. Joshi and Chandra Shekhar, "*Issues of Reconfigurable Computing Systems*," National Conference on Electronics Circuits and Communication Systems (ECCS-2006),. pp. 53–57, February 2006, TIET, Patiala, India.

(C130) K. Solomon Raju, **M.V. Kartikeyan**, R C Joshi and Chandra Shekhar, ‘Reconfigurable Computing Systems Design: Issues at System–Level Architectures," The 5th Annual Inter Research Institute Student Seminar in Computer Science (IRISS 2006, January 2006), IITM, Chennai, India.

(C131) **M.V. Kartikeyan**, "*Gyrotrons for National Fusion Programme: ITER & Beyond*," Invited talk, PSSI–IPR Workshop on National Fusion Programme: ITER & Beyond, November 8–10, 2006, Institute for Plasma Research, Gandhinagar, India.

(C132) **M.V. Kartikeyan**, Arun Kumar, E. Borie, S. Illy, B. Piosczyk, M.K. Thumm, "*Progress on the IHM–IITR Collaborative Research on the Design of Application Specific Gyrotrons*," National Symposium on Vac. Elect. Devices & Applications–2006, October 11–13, 2006, CEERI, Pilani, India.

(C133) **M.V. Kartikeyan**, K. Swathi, Arun Kumar, "*Initial Design Studies of a 42 GHz, 200 kW, CW Gyrotron*," National Symposium on Vac. Elect. Devices &

Applications–2006, October 11–13, 2006, CEERI, Pilani, India.

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