



The 7th Workshop

University of Tsukuba Forum on Power Electronics Tomorrow (UTOP)

Application of SiC-MOSFET Devices to EV

Time & Date: 13:20 – 17:40, July 6, 2018

Venue: Tokyo Campus, University of Tsukuba
3-29-1 Otsuka, Bunkyo-ku, Tokyo

Participation fee: ¥3,000 (including preprint; free for students)

Organizer: Faculty of Pure and Applied Sciences, University of Tsukuba

Co-organizer: Technology Forum for the Future Asia (TeFFA)

Supporter: The Japan Institute of Power Electronics

Tsukuba Power Electronics Constellations (TPEC)

Program

Mediator: Takanori Isobe, Associate Professor, Institute of Applied Physics, University of Tsukuba

13:20 “Recent topics at Power Electronics Laboratory, University of Tsukuba”

Prof. Noriyuki Iwamuro, Institute of Applied Physics, University of Tsukuba

13:30 Presentation (1), Power Electronics Laboratory in FY2018

“Investigation of near-interface traps in 4H-SiC MOS devices”

Xufang Zhang, Ph. D student, Institute of Applied Physics, University of Tsukuba

13:30 Presentation (2), Power Electronics Laboratory in FY2018

“Non-power operation of MOSFET body-diode by Z-source inverter
- Utilization of device property by circuit behavior -

Ryuji Iijima, Ph. D student, Institute of Applied Physics, University of Tsukuba

14:20 “Rare-earth free motor for EV (SR motor)”

Akira Chiba, Professor, Department of Electrical & Electronics Engineering,
Tokyo Institute of Technology

15:10~15:25 Coffee break

Mediator: Hiroshi Yano, Associate Professor, Institute of Applied Physics, University of Tsukuba

15:25 “Nissan’s EV strategy (including power electronics technology)”

Haruyoshi Kumura, Fellow, Nissan Motor Co., Ltd.

16:15 “SiC trench MOSFET with built-in SBD (SWITCH-MOS)”

Yusuke Kobayashi, Advanced Power Electronics Research Center,
National Institute of Advanced Industrial Science and Technology (AIST)

Mediator: Hiroshi Tadano, Professor, Institute of Applied Physics, University of Tsukuba

17:10 Panel discussion

“How can SiC devices contribute to EV technology?”

17:40 Closing remarks

18:00~19:30 Dinner at Rinya Kaikan (¥3,000 for participation)

Address for participation: teffareg@ybb.ne.jp (deadline: June 29, 2018)

Please inform of your name, affiliation, e-mail address and presence/absence at dinner.