



Dr. Supratim Basu

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Over 30 years of pureplay immersion in Power Electronics Research and Design. Demonstrated expertise in blending innovative application of Technology with astute commercial thought. Successful history of New Product Development, Business and Organizational Management, and Driving Profitability. Acquiring Projects from global customers and leveraging sensitivity to cultural nuances of European & American clients, towards building effective relationships. Extensive experience in Teaching and Academic Research, in University environments.

EXPERIENCE & OFFERED EXPERTISE

POWER ELECTRONICS DESIGN – SWITCHMODE POWER SUPPLIES, CHARGERS, INVERTERS & UPS UPTO 30 KW

Years of practical hands-on experience in designing, building, debugging & testing of converters including EMI and Safety compliance for Industrial, Medical, Telecommunications, Automotive, and Military business verticals.

Acknowledged contributions:

- Technology Consulting, Creating – Reports, Technology Roadmaps, Design Schemes & Topologies
- Creating & Reviewing - Specifications, Test Plans, Design Strategies, Design Audits, Cost Estimations
- Power Electronic designs, Advanced Topologies, Analog designs, SiC & GaN Power Trains
- Component Selection, Safe Operating Area considerations, DFM, Power & Analog PCB designs
- Magnetics designs, Natural cooled Ferrite transformers upto 5 kW, Transformers up to 30 kW
- Thermal designs, Packaging, Cooling concepts, Designs for Vibrations & Environmental tests, HALT
- Design strategies & control for EMI generation at source, Safety design, Certifications

PROJECT & PROJECT ACQUISITIONS – CUSTOMER ENGAGEMENT, REVIEWS, PRE-STUDY & CONTRACTING

25+ Years of experience in acquiring Power Electronics R&D Projects from Customers in USA & Europe.

Deliverables being, either, creating Technology Roadmaps, Study Reports & Feasibility Studies. Or, the Development of New Products - requiring design, prototyping, certification, and Transfer of Technology.

Acknowledged contributions:

- Reviewing RFQs - Estimating budgetary cost allocations, Technology reviews, IP allocations
- Technology Engagements with Customers & Showcasing Design processes to win Customer confidence
- Contracting Reviews (MSA & SOW) & Negotiations - to drive Project profitability
- Mentoring Internal Teams to drive profitability by optimizing resource allocation & design processes
- Reducing Prototyping Cycles by getting Projects right the first time around
- Leveraging understanding of American & European cultural nuances, to win and drive projects

RESEARCH & TECHNOLOGY – INTELLECTUAL PROPERTY, RESEARCH PUBLICATIONS, MENTORING, CONSULTING

Salient successes:

- Created multiple IPs in Power Electronics design
- Multiple first-author publications in **IEEE** and **EPE** journals & conferences
- Multiple tutorials to global audiences in **IEEE** and **EPE** Power Electronics conferences in USA & Europe
- Delivered multiple lectures and co-supervised international Ph.D. students with **IEEE** publications
- Training and Consulting with many Global corporations
- IEEE Senior Member

EDUCATION

- **Ph.D.** - Chalmers University of Technology, Sweden - *Power Electronics, 2003-06*
- **M.Tech.** - Indian Institute of Science, Bangalore - *Power Electronics, 1990-92*
- **B.E.** - Birla Institute of Technology, Mesra - *Electrical & Electronics, 1984-88*

REFERENCES

- **INDUSTRY** - **GE** - USA | **ON SEMI** – USA | **ALCATEL** - France | **HIRSCHMANN** - Germany | **RISE** -Sweden | **KEMPPPI** - Finland | **TDK** - UK | **HYUNDAI** - Korea |
- **ACADEMICS** – University of Minnesota-USA | NTNU-Norway | Alto University-Finland