Facts & Figures

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Director of the Institute
Prof. Dr. Günther Tränkle, Ext. -2601
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Founded
1992; member of the Leibniz Association

Staff
305 (including 150 scientists, 25 student assistants)

Budget (2018)
- Basic funding: Land Berlin & Federal Government (14.9 million Euros)
- Public project funding 19.2 million Euros
- Industrial contracts (3.8 million Euros)

Research Topics & Competencies
- Center of competence for III-V semiconductors – one of the most capable and major businesses in this field in Europe
- Applied research and development of microwave and optoelectronic devices:
  - Photonics
    - high-power diode lasers: broad area & bars
    - high-brightness & narrowband diode lasers
    - hybrid laser modules (cw & pulsed): from NIR to UV spectral range, e.g. for biophotonics, laser sensors, laser metrology, quantum sensors …
    - nitride laser diodes for the blue & UV spectral range
    - short-wave UV LEDs, e.g. for sensors, disinfection, medical & production technology, …
  - III-V Electronics
    - GaN microwave transistors & MMICs
    - advanced power amplifier concepts for the wireless infrastructure
    - integrated circuits with InP HBTs for the 100…500 GHz frequency range (THz electronics)
    - fast drivers for laser diodes
    - compact sources for microwave plasmas
    - GaN power electronics
III-V Technology
- epitaxy (MOVPE) of GaAs- & GaN-based layer structures for devices
- (Al)GaN HVPE for bulk crystal growth
- in-situ control techniques for MOVPE & HVPE
- complete process line 2" - 4" for GaAs, InP, SiC & GaN devices, including laser micro processing
- InP HBT technology for mm-wave & THz applications, hetero-integrated SiGe-BiCMOS/InP-HBT foundry with IHP
- mounting & assembly

Outreach

Prototype Engineering
functionally-efficient models & prototypes for system applications

Science Management
- technology transfer & marketing
- education & securing skilled personnel

Spin-offs
BeamXpert GmbH, BEAPLAS GmbH, BeMiTec AG, Brilliance Fab Berlin GmbH, eagleyard Photonics GmbH, Jenoptik Diode Lab GmbH, TESAG (since 1/2009 Jenoptik), UVphotonics NT GmbH

Partner of
- Technische Universität Berlin
- Humboldt-Universität zu Berlin
- Goethe-Universität Frankfurt am Main
- Brandenburg University of Technology Cottbus-Senftenberg
- Research Fab Microelectronics Germany (FMD)
- Zwanzig20 consortium “Advanced UV for Life” (coordinated by FBH)
- Photonics Cluster Berlin Brandenburg
- …