

# EMPIRE XPU INDIA ROADSHOW 2015

**DELHI.PUNE.MUMBAI.HYDERABAD.BANGALORE**

**05 - 09 OCTOBER-2015**



**DR. ANDREAS WIEN**  
VISITING RESEARCHER

**Dr. Andreas Wien**, studied electrical engineering from 1986 to 1991 at the University of Siegen with emphasis on high frequency passive components.

In 1992 he received a fellowship at the University of Karlsruhe on behalf the German Research Society (DFG) where he applied new numerical methods to analyse & design antennas in microwave high power applications. He received the Ph.D. degree in 1995 & joined IMST GmbH in Germany. Since then he has been working on the analysis and design of passive high frequency components & antennas in the Antenna & EM Modelling Department as Scientific Engineer. He is responsible for the development & support of the EM simulation tool EMPIRE.

## RESEARCH PUBLICATIONS



✍ Reflection of gyrotron TE<sub>0n</sub> modes at open-ended circular waveguide

✍ Efficient FDTD parallel processing on modern PC CPUs.

**FOR MORE DETAILS,  
PLEASE VISIT:**

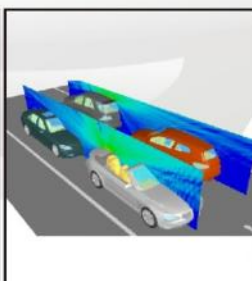
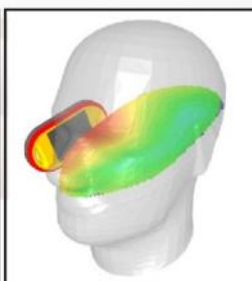
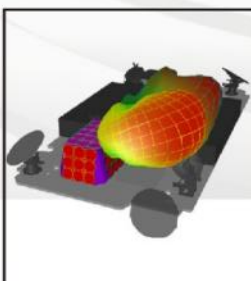
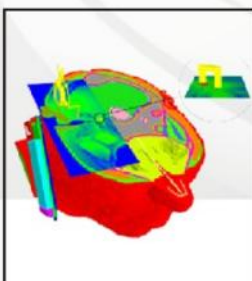
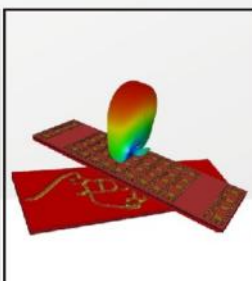
[http://www.researchgate.net/profile/a\\_wien/publications](http://www.researchgate.net/profile/a_wien/publications)

<http://www.empire.de/page28.html>

## ABOUT EMPIRE XPU

**EMPIRE XPU** is one of the fastest and the most accurate **3D electromagnetic field simulators** worldwide. It is based on the powerful Finite Difference Time Domain method (FDTD), which has become an industrial standard for RF and microwave component and antenna design. Empire XPU is Developed by IMST Germany, IMST is a competence centre and professional development house for high-frequency circuits, wireless modules, and communications systems.

**FOR MORE DETAILS, VISIT: <http://www.empire.de/>**



# EVENT AGENDA

## 1. INTRODUCTION TO FDTD METHOD

Discretization of Maxwell's equations  
Memory usage and simulation time  
Convergence and accuracy Far field transformation

## 2. SIMULATION SPEED ACCELERATION & EMPIRE UNIQUE FEATURES

Thin sheet model and conformal meshing  
Ports, plane Waves, waveguides and field source  
Parameter sweep and optimization  
XPU acceleration technology  
Cluster computing

## 3. DESIGN EXAMPLES

RF circuits and components  
(MEMS, Packages, Filters, PA)  
Antennas  
(Patch, Arrays, Reflector, Mobile, Automotive)  
EMC including body models  
(Dosimetry, Wireless power transfer)

## 4. DEMONSTRATION

Live demonstration of model setup and simulation with Empire

## 5. QUESTIONS AND DISCUSSION

DELHI.PUNE.MUMBAI.HYDERABAD.BANGALORE



### DELHI

Radisson Blu Dwarka  
05th October 2015 (monday)



### PUNE

Novotel Pune Viman Nagar  
06TH OCTOBER 2015 (TUESDAY)



### MUMBAI

Kohinoor Hall, Prabhadevi  
07TH OCTOBER 2015 (WEDNESDAY)



### HYDERABAD

Fortune Park Vallabha, Banjara Hills  
08TH OCTOBER 2015 (THURSDAY)



### BANGALORE

Ramada Encore Domlur Bangalore  
09TH OCTOBER 2015 (FRIDAY)

## AMBITION TECHNOLOGIES DELHI

Ambition Technologies was incorporated in 2006. Headquartered in New Delhi, the company has offices in other major cities of India. The company's strength comes from its highly qualified & motivated employees who manage profit center based divisions. With its extended network of strategic business associates & distributors, the company has been able to provide products & services to its customers in the Indian subcontinent. Ambition Technologies works in following core engineering segments i.e. RF Antenna Design & Development Solutions, EDA Tools & Electronics Development Hardware Platforms.



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