Intellectual Property Rights
Copyright protected, Secret know-how, Exclusive rights

Web link to present innovative product
http://jce.iaik.tugraz.at/products/index.php, www.iaik.at

Comments about market applications
Check our references at http://jce.iaik.tugraz.at/sales/references/index.php. You are encouraged to read more about reference projects and customers in http://jce.iaik.tugraz.at/sales/brochure/cryptographyAtSic.pdf

Type of collaboration sought
Research cooperation, Measurements/Analytics, Technical co-operation, Consultancy

The specific area of activity of the partner
Each area in which security is needed

The tasks to be performed by the partner sought
Partners who want to add security to the fields of eHealth, Telemedicine etc.
Partners who in addition want to meet with the national and international legislative standards.
Possible partners come from the fields of data communication and they usually require a high level of security.
Partners are sought who are engaged in research with security aspects, e.g. in the area of biometry, etc.
Also partners are sought who are in touch with the eCard, so there could be a high potential to benefit for all parties.

NANOPARTICLES

T15: Measurement of "Fine Dust" quantites, especially Nanoparticle Number Size distributions , PM10 Mass Monitoring and Nanoparticle Coagulation behaviour

DI Bernhard HEIDEN, Institute for Internal Combustion Engines and Thermodynamics, TU Graz

A theoretical proof is shown in three steps for the evidence of the direct number dependency of fine dust instead of the currently mass dependent limitation legislation, based on Fick's law of diffusion. Some outlook is given for practical application and verification in medical devices to be built or yet available.

Measurement of "Fine Dust" quantites, especially Nanoparticle Number Size distributions and PM10 Mass Monitoring. Two measurement devices among others are of especially concern. The SMPS (scanning size particulate sizer) which measures the number size distributions of particles between 10 and 1000 nm (nanometer) (PM1) and the ELPI (Electrical low pressure impactor) which has a measuring range from 30-10000 nm (PM1,~PM10) and can also be used for dynamic measurements. For "Fine Dust" mass measurements a TEOM (Tapered oszillating mass balance) ist presented. This device is mostly used for ambient air mesurements of the so called fine dust (=PM10). A CMD for online coagulation measurement of nanoparticles is available as prototype based on the SMPS.

Type of Profile
Technology Offer, Know-how/ expertise, Know-how/ expertise

Innovative aspect
Fine Dust is a current problem in many cities especially in Graz. Further quantitative investigation of health relevant quantities have to be investigated both theoretical and from a technological point of view. Similarity analysis can support to identifiy health relevant parameters and show as precursor of medical device research.

Current state of development of the technology
Development phase – laboratory tested, Available for demonstration – field tested

Type of collaboration sought
Research cooperation, Measurements/Analytics

FLOW MEASURING

T16: Characterization of suitability of synthetic synovia replacement pharmaceuticals by a simple flow measuring technique

Univ.-Prof. Dr. Günter Brenn, Institute of Fluid Mechanics and Heat Transfer, TU Graz

Treatment of synovial joint problems in orthopedy is often based on the replacement of the synovial liquid by a synthetic fluid which is injected through a needle. The pharma market offers many such fluids, which are mostly hyaluronic acid preparations. Experience in orthopedy, however, tells us that