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Sony manufactures audio, video, communications, and information technology products for the global consumer and professional markets. With its music, pictures, games and online businesses Sony is uniquely positioned to become a leading personal broadband network company in the 21st century. Sony's European electronics operations cover a full range of activities from R&D, design, engineering and manufacturing to marketing, sales and service.

Our **Stuttgart Technology Center** (STC) is where innovations and future generations of products are being developed to meet the requirements and needs of the worldwide markets and customers.

In our STC **European Technology Center** (EuTEC) our engineers are providing advanced European Audio and Video Technology for worldwide and European specific CE devices. The R&D is ranging from architecture and algorithm to software and standardization in the areas of optical technology (illumination and projection systems), digital transmission technology (digital radio and TV, near field communication and power-line communication), TV picture improvement (HDTV and MPEG on flat-screen displays) as well as standardization (DRM & Media Standards, DVB, NFC, PLC).

We are offering a

Research Internship: Segmentation and classification of text in video on noisy background

Inside the Sony Stuttgart Technology Center, we are working on algorithms for the detection and classification of characters in video signals. Our current system is using morphologic operators for text detection and Neural Networks and Support Vector Machine classifiers for the final character classification.

One of the current challenges is the segmentation and classification of text areas on a non-uniform background with high spatial frequencies.

Within this internship different algorithms for character segmentation on a noisy background will be implemented. The resulting performance of the segmentation will be evaluated and also the impact on the overall accuracy will be analyzed.

The successful candidate will work on the following topics:
- Adapting existing segmentation algorithms to noisy background
- Implementation of text background removal algorithms
- Evaluation of classification and segmentation accuracy

We are looking for a dedicated student with a background in signal/video processing and classification. The candidate should know how to use Matlab and should be familiar with Linux/Unix. If you are interested in this position, please send a CV including your grades and your availability to the adress below. The duration of the internship is 6 months. A compensation of 1000 Euro per month is paid.

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