

PoliMI, July 12nd - 13rd, 2010

Kick-off meeting

1. Meeting organization

The kick-off meeting is aimed to start the MiSPiA project. The official start date is confirmed to have been the 1st of June 2010.

Partners will meet and present not just their expertise and know-how, but they will discuss in depth requirements, specifications and constrains of the SPAD devices, array chips, detection modules, and 2D and 3D cameras to be developed within the MiSPiA project, which are the issues to define in Work Package WP1.

To this aim, each partner will provide a written presentation (ppt, PowerPoint) of his related know-how, ideas, present activity and considerations on the topics. All material will be distributed and shared among partners.

Then also all the other WPs will be briefly summarized and settled.

The meeting will be very dense and will last just two days, so I recommend everybody to arrive early Monday morning, July 12th, and to depart late Tuesday evening, July 13th. Moreover please be very synthetic on general issues, while focus deeply into considerations and discussion aimed to converge to the first Deliverables that are due before the end of August to the Commission.

The management of the project will be presented and discusses. Both the final Grant Agreement and the Consortium Agreement will be presented to the partners.

During the meeting, PoliMI will make available suggested formats (ppt, word, and excel files) for technical reports, financial monitoring, man months allocation, and so on. The reason being that the EU prefers an unique presentation format for the project. Most of the material will be uploaded to the official web-site of the MiSPiA project, in a protected area for authorized users. Please remember that all these presentations will be the basis for the summary report.

The meeting is organized in two days. For this kick-off meeting, the presentations and the speakers will not be rigidly allocated, instead we will try to have an open and frank environment for discussion. Nevertheless the meeting must bring to the clear definition of specifications, requirements, and constrains for beginning the design and developments of the microelectronic SPAD detectors, arrays, smart-pixels, 3D ranging techniques, illumination definition, and detection modules *desiderata*.

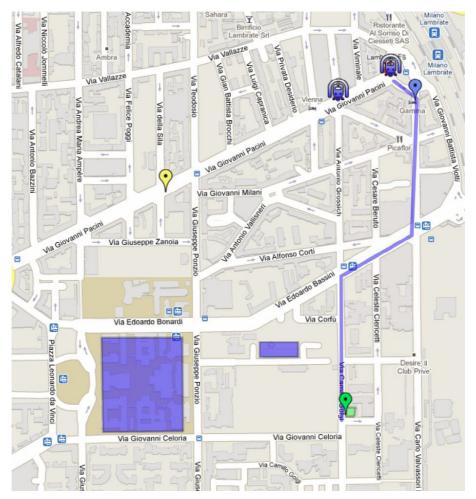
Instead, just as a foretaste, in the next meetings each WP will have a time slot of about 60 min; the WP leader will present in 45 min a synthetic evaluation of the WP activity according to the following points: status up to that month; achievements, problems, corrective actions; deliverables and achieved milestones; future planning; questions and answers. The remaining 15 min will be devoted to discussions based on the presentation.



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2. Location

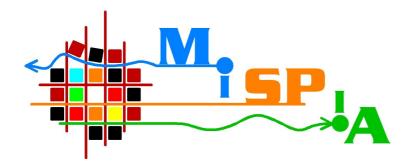
The meeting will be held at Politecnico di Milano, via Golgi 40, 20133 Milano (Italy). In case of need, please contact the Project Coordinator PC Franco ZAPPA on his mobile (+39-338-6760988). Here is a map with the location (green tag) and public transport (blue tag) nearby. All info are available on this link:



3. Travel details

Please arrive to the location for 10:00 in the morning of Monday July 12th 2010. And please leave the meeting late in the afternoon of Tue July 13th 2010.

Please note that Milano has two airports: LINATE and MALPENSA. The closer and easier one is LINATE that can be reached by public transports (bus 73 then bus 93) in less than 30 min and by taxi in less than 15 min. Instead Malpensa is about 40 km away and it takes about 80 min by bus or "Malpensa Express" train to reach the location. Taxi can be faster (50 min, depending on traffic conditions).



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4. Hotels

Here are some hotels nearby. The closer to the location is Hotel Gamma. Please book hotels by your own. In case you need assistance, please let me know (franco.zappa@polimi.it) the number of participants and your arrival and departure date and I'll book it for you.

Hotel Gamma http://www.hotelgammamilano.it/

Via Valvassori Peroni 85, 20133 Milano

Phone: +39-02-26413152 Fax: +39-02-2640255 Email: htlgamma@tin.it

Hotel Città Studi http://www.hotelcittastudi.it/index.htm

Via Saldini 24, 20133 Milano

Phone: +39-02-744666 +39-02-744620

Fax: +39-02-713122 Email: hcs@hotelcittastudi.it

Hotel Lombardia http://www.hotellombardia.com

Viale Lombardia 74/76, 20131 Milano

Phone: +39-02-2892515 Fax: +39-02-2893430

Email: info@hotellombardia.com

Hotel Zefiro http://www.hotelzefiro.com

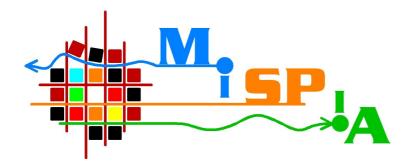
Via G. Gallina 12, 20129 Milano Phone: +39-02-70005654 Fax: +39-02-713811 Email: info@hotelzefiro.com

5. Partner list

All partners are welcome to the meeting. Please inform the PC on the number of participants and their arrival and departure dates. Here is a preliminary guess:

PoliMI (4 participants)
FRAUNHOFER (3 participants)
HWU (2 participants)
MPD (2 participants)
CRF (2 participants)
EMZA (1 participant)
CFc (2 participants)

Total expected participants at the meeting: 16



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6. Technical discussion

The kick-off meeting will be exploited also as a technical meeting focused on triggering the proper activities to develop and complete WP1, that is running for the first three months of the project, from June until August 2010.

Here are the Tasks of WP1:

- 1.1 Requirements of the short-range 3D ranging system in the automotive safety applications.
- 1.2 Requirements of the long-range multi-spectral 3D ranging system in the security application.
- 1.3 Definition of CMOS fabrication steps and advanced SOI/CMOS wafer-bonding processing.
- 1.4 Specifications for SPAD detectors, array chips, 3D ranging modules, and 3D cameras.

Task 1.1 and Task 1.2 will result in one REPORT, as Deliverable D1.1 – "Requirements for the 3D ranging systems for safety and security applications".

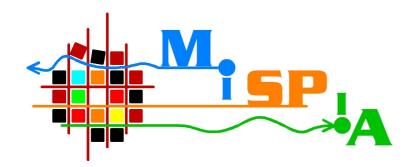
Task 1.3 will result in one REPORT, as Deliverable D1.2 – "Definition of CMOS fabrication steps and advanced SOI/CMOS wafer-bonding processing".

Task 1.4 will result in one REPORT, as Deliverable D1.3 – "Specifications for SPAD detectors, array chips, 3D ranging modules, and 3D cameras".

These three reports must be submitted to the Commission within August 2010.

The Milestone related to this Work Package is Milestone MS1 – "Requirements and specifications for the 3D cameras", due for August 2010, too.

After the kick-off meeting, all partners will work on these reports. The WP leader is HWU, who will be in charge of collecting all contributions from partners.



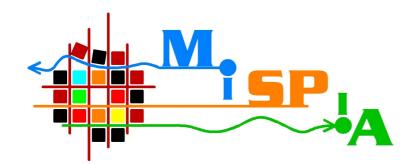
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7. Agenda for the first day

Monday, July 12th 2010, room ALFA, via Golgi 40, Milano

10:00-10:15	Welcome	(Prof. F. Zappa)	15 min
10:15-10:45	MiSPiA goals, WPs, Deliverables, Milestones	(Prof. F. Zappa)	30 min
10:45-11:30	CFc: reporting and accounting information	(Dr. C. Finocchiaro)	45 min
11:30-12:00	POLIMI: SPAD, smart-pixels, arrays	(Prof. F. Zappa)	30 min
12:00-14:00	Lunch		
14:00-14:30	FRAUNHOFER: CMOS technology	(Dr. D. Durini)	30 min
14:30-14:45	HWU: microlenses	(Prof. M. Taghizadeh) 15 min
14:45-15:00	HWU: ToF experiments	(Prof. G. Buller)	15 min
15:00-15:30	CRF: automotive applications and requirements	(Dr. D. Capello)	30 min
15:30-16:00	CRF: present 3D cameras and techniques	(Dr. N. Pallaro)	30 min
16:00-16:30	Coffee break		
16:30-17:00	EMZA: 2D cameras and processing algorithms	(Dr. Z. Smilansky)	30 min
17:00-17:30	MPD: present SPAD modules and technology	(Dr. S. Tisa)	30 min
17:30-18:30	Visit to labs and 32x32 SPAD camera demo	(Dr. S. Tisa)	60 min
20:00-	Dinner		

Please note that CRF will have a longer presentation, being the driving partner for the automotive application. The consortium really need to understand the state-of-the-art of present 3D systems CRF (and also competitors) is developing and testing, and all possible techniques for 3D ranging (direct or indirect ToF, pulse or sinusoidal modulation, etc.). A careful and clear idea of Patents from other Companies is also a must, because MiSPiA aims to exploit and deploy novel 3D cameras to the market after the project end.



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8. Agenda for the second day

Tuesday, July 13th 2010, room ALFA, via Golgi 40, Milano

09:00-10:00	Task 1.1: requirements of the short-range 3D ranging system in automotive safety applications Task 1.2: requirements of the long-range multi- spectral 3D ranging system in security application	(Dr. N. Pallaro) (Prof. G. Buller)	60 min
11:00-11:30	Coffee break		
11:30-12:30	Task 1.3: definition of CMOS fabrication steps and advanced SOI/CMOS processing	(Dr. W. Brockherde)	60 min
12:30-14:00	Lunch		
14:00-15:00	Task 1.4: specifications for SPAD detectors, array chips, 3D ranging modules, 3D cameras	(Prof. F. Zappa)	60 min
15:00-15:30	Deliverables D 1.1, D 1.2 and D 1.3	(Prof. M. Taghizadeh	
15:30-16:00	Coffee break		
16:00-17:00 17:00-18:00	SPAD smart-pixels and mini-arrays for 2D imaging SPAD smart-pixel and mini-arrays for 3D ranging	(Prof. F. Zappa) (Dr. D. Durini)	60 min 60 min
18:00-	End of the meeting		