Regional Program STIC-AmSud
2017 Project Proposal (Research – Innovation)

Basic Form

- This form, and the associated CVs, must be filled in English. Before filling the form, please read carefully the bases published in the STIC-AmSud site (www.sticamsud.org).
- This form must be sent in **.pdf** by email to the STIC-AmSud Secretariat (**stic@sticamsud.org**) by the project's International Coordinator.

A. General Information

A1	**Project title**
	PaSEo - **P**rofile generation **A**nd content **S**uggestion on **E**-T**O**urism

A2	**Acronym**
	PaSEo

A3	**Research domain**
	Computer Science

A4	**Project goals**
	The main goal of this project is to provide a software solution for smartphone/tablets based on a recommendation system to support travelers/tourists on obtaining the most appropriate information according to their wishes, needs, and preferences. In order to model the information in the domain of tourism, we also aim to develop an ontology able to be integrated with existing tourism-oriented ontologies and enriched with specific tourists behaviour concepts. Our tourism ontology will allow machine learning in order to improve suggestions and social networks interactions, with automatic push of interactions applications (to create ephemeral communities) and tags. As with Long Life Application approaches, the application will evolve (progressive apps) according to user needs while accessing suggestions.

A5	**Abstract**
	With the rapid evolution of mobile devices and social media platforms, more users are now connected to collaboration and information sharing platforms (e.g., Facebook, Google+) and other sharing applications (e.g., Iphotos). These mobile devices and

	platforms offer users the opportunity to share and manage a huge quantity of various multimedia objects (e.g., photos, videos) taken by users, during their activities (e.g., travels, tourism, social events). Those pictures reflect their interest (landscape, sea, masterpieces, art, etc.), from which it is possible to deduce their main interests and therefore crawl for the web to suggest them any additional activities. In particular, the e-tourism domain is one of the most promising domain for mobile applications and is becoming an important market. Since, tourism is an activity strongly connected to the personal preferences and interests of people, there is a need of applications that automatically extract this information from the data shared, accessed, and managed for tourists, thus providing more and more meaningful and user-centric information. In this context, this project propose **PaSEo** (**P**rofile generation **A**nd content **S**uggestion on **E**-T**O**urism), an efficient software solution for smartphone/tablets based on a recommendation system to support travelers/tourists on obtaining the most appropriate information according to their wishes, needs, and preferences. In order to model the information in the domain of tourism, we also aim to develop an ontology able to be integrated with existing tourism-oriented ontologies and enriched with specific tourists behaviour concepts. Our tourism ontology will allow machine learning in order to improve suggestions and social networks interactions, with automatic push of interactions applications (to create ephemeral communities) and tags. As with Long Life Application approaches, the application will evolve (progressive apps) according to user needs while accessing suggestions. Using deep learning, PaSEo can evolve in order to capitalize on previous pictures, previous suggestions that can be used to refine suggestions as soon as a person goes to a new place. The project is also improved by using social aspect, such as user's "friend" shared common interests, that can enrich the user profile and precision of suggestions. In summary, this project represents the fusion of some of the most important e-tourism trends: semantic web (WEB 3.0), web crawling, recommendation systems, social network profile management, contextual information extraction, matching learning, images analysis, and social computing.

A6	**Scientific coordinators at each institution**			
	South America A		**South America B**	
	Institution	**Universidad Católica San Pablo**	Institution	**Universidad Simón Bolívar**
	Project coordinator	**Dennis Barrios Aranibar**	Project coordinator	**Yudith Cardinale**
	Address	**Urb. Campiña Paisajista S/N, Quinta Vivanco**	Address	Valle de Sartenejas, Baruta, Edo. Miranda Apdo 1080-A

Phone/Fax	**+51-54-605600 - Annex 268**	Phone/Fax	+58-212-906-3251 +58-212906-3241	
Email	**dbarrios@ucsp.edu.pe**	Email	**ycardinale@usb.ve**	

South America C		**South America D**	
Institution		Institution	
Project coordinator		Project coordinator	
Address		Address	
Tel/Fax		Tel/Fax	
Email		Email	

France A		**France B**	
Institution	**Université de Pau et des Pays de l'Adour (UPPA)**	Institution	**LIG - Université Pierre Mendès France (Grenoble 2)**
Project coordinator	**Philippe ROOSE**	Project coordinator	**Jérôme Gensel**
Address	**IUT de Bayonne, 2 Allée du Parc Montaury – 64600 Anglet**	Address	**Laboratoire d'Informatique de Grenoble 681 rue de la Passerelle BP 72 38402 Saint Martin d'Hères**
Tel/Fax	**+33 681826160**	Tel/Fax	**+33 4 76 82 72 80**
Email	**Philippe.Roose@iutbayonne.univ-pau.fr**	Email	**Jerome.Gensel@univ-grenoble-alpes.fr**

A7	Other participating institutions	
	In South America	**In France**

A8	List of expected participants (name and affiliation)
	Philippe ROOSE (LIUPPA, Université de Pau et des Pays de l'Adour) Sébastien LABORIE (LIUPPA, Université de Pau et des Pays de l'Adour) Philippe LOPISTEGUY (LIUPPA, Université de Pau et des Pays de l'Adour) Gérôme GENSEL (LIG, Université Grenoble Alpes) Dennis BARRIOS ARANIBAR (LARVIC, Universidad Católica San Pablo) Raquel Esperanza PATIÑO ESCARCINA (LARVIC, Universidad Católica San Pablo) Regina Paola TICONA HERRERA (LARVIC, Universidad Católica San Pablo) Hernán Humberto ALVAREZ VALERA (LARVIC, Universidad Católica San Pablo) Yudith CARDINALE (Universidad Simón Bolívar)

A9	International Project Coordinator (to be chosen among the Scientific Coordinators mentioned in A6)
	Philippe ROOSE (LIUPPA, Université de Pau et des Pays de l'Adour)

B. Project Details

B1. Acronyms

- Universidad Católica San Pablo (Perú) : UCSP
- Université de Pau et des Pays de l'Adour (France) : UPPA
- Universidad Simón Bolívar (Venezuela) : USB
- Université Grenoble Alpes (France) : UGA

B2. Project description

With the rapid evolution of mobile devices and social media platforms, more users are now connected to collaboration and information sharing platforms (e.g., Facebook, Google+) and other sharing applications (e.g., Iphotos) [1]. These mobile devices and platforms offer users the

opportunity to share and manage a huge quantity of various multimedia objects (e.g., photos, videos) taken by users, during their activities (e.g., travels, tourism). Those pictures reflect their interest (landscape, sea, masterpieces, art, etc.), from which it is possible to deduce their main interests and therefore crawl for the web to suggest them any additional activities.

In particular, the e-tourism domain is one of the most promising domain for mobile applications and is becoming an important market [2-8]. When travelers go to a place, one of the first thing they do is to get information/data on the place, go to tourist information office, etc.

It currently exists plethora of applications dedicated to provide information of city, places, thematic, parks, etc. In order to use them, the tourist has to be aware of it existence, install it, and hope that it fit to his wishes (only 10 % of downloaded mobile applications are used more than 1 time). This pull domain (the user do the action to search for apps) may be interesting, when users have a precise idea of their research of app. Since several years, the pull mode becomes more common. Apps like Google Now[1] gives information/suggestions to users detecting what he needs according to his geographic place and time. Nevertheless, such proposition is very light and does not take into account the activity of the user.

Since, tourism is an activity strongly connected to the personal preferences and interests of people, there is a need of applications that automatically extract this information from the data shared, accessed, and managed for tourists, thus providing more and more meaningful and user-centric information [9].

Long Life Application is a new way to respond to the user's needs in a dynamic and intelligent way. It evolves at run time (include/exclude business functionalities, update interactions mode, migrate executions) according to the user's need. While the user moves in his/her surroundings, the app understands the occurring events and builds contextually described situations [10,11]. However, there is still a lack of precisions when users are on specific situations, such tourism activities.

In this context, this project propose **PaSEo** (**P**rofile generation **A**nd content **S**uggestion on **E**-T**O**urism), an efficient software solution for smartphone/tablets based on a recommendation system to support travelers/tourists on obtaining the most appropriate information according to their wishes, needs, habits, and preferences.

Since several years, when persons go to a place, they take a lot of pictures. Our strong hypothesis is that pictures reflect their interest (landscape, sea, masterpieces, sport, etc.). Hence, from such pictures, we can deduce their main interest and therefore crawl for the web to suggest them activities linked to their profile.

In order to model the information in the domain of tourism, we also aim to develop an ontology able to be integrated with existing tourism-oriented ontologies and enriched with specific tourists behaviour concepts. Our tourism ontology will allow machine learning in order to improve suggestions and social networks interactions, with automatic push of interactions applications (to create ephemeral communities) and tags. As with Long Life Application approaches, the application will evolve (progressive apps) according to user needs while accessing suggestions.

[1] https://www.google.com/intl/fr/landing/now/

Using deep learning, PaSEo can evolve in order to increase precisions as well on capitalizing on previous taken pictures and previous suggestions, which can be used to refine recommendations when the user goes to another place.

The system is also enriched using social aspects, such the analysis of pictures of friends (respecting privacy). The hypothesis is that if they are friends (with a degree level), they share common interests, therefore the information shared by friends will enrich users' profile.
This social part will also benefit the deep learning process according to friend links validation when traveling together or when a friend recently visited the place.

In summary, this project represents the fusion of some of the most important e-tourism trends: semantic web (WEB 3.0), web crawling, recommendation systems, social network profile management, contextual information extraction, matching learning, images analysis, and social computing.

Figure 1 shows a rich picture of the whole process follows by our system, PaSEo.

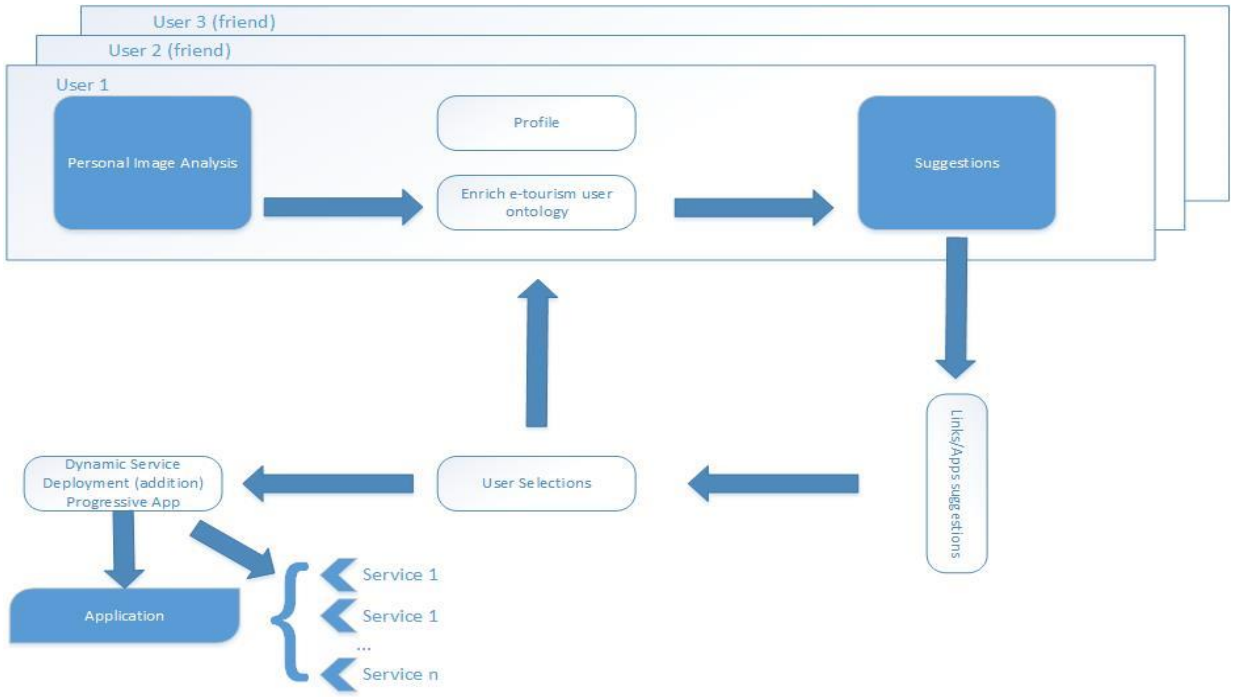


Figure 1: Architecture of PaSEo

Our proposed recommendation system needs to fulfil several steps:

1/ Analysis/Enrichment step
We need to have algorithms able to detect data contained on each picture. This can be done by analysing the picture metadata automatically added by smartphone (but most of the time incomplete) and by analysing the picture itself with API like Google Vision API.
According to the e-tourism ontology (describing the tourism domain), each picture is qualified by its topic of interest and the profile of each tourist is enriched.

2/ Suggestion step
When a tourist wants suggestions, a crawling engine will be launched, which will propose and display links related to his/her topics of interest. This crawling will also use spatio-temporal criteria in order to propose really up-to-date information and suggestions.

3/ Deep learning
Each time a tourist validates a link, this enriches his/her profile, as well as the profiles of his/her friends (social profile dissemination). Also, his/her profile and the metadata of images will be used together for deep learning algorithms in order to refine the suggestions related to a set of places.

4/ Social Computing
By using probabilistic methods, it is possible to enrich suggestions based on friends' profiles and on the similarity of their preferences. Moreover, the use of Ephemeral Communities concepts allows all tourists to interact on short period about specific selected subjects. The use of Social API (as for example, MS Social Analytics) and Taldea Spontaneous Communities Ontology [12].

5/ Dynamic Deployment
In order to be more interactive and not only content based, the application may dynamically integrate new functions (concept of Long Life Applications/Progressive apps). In order to detect which functionality has been added (or deleted), the ontology may also be enriched with service descriptions in order to be able to identify them. The middleware Kalimucho™[10] will be useful for such dynamic (re-)deployment.

Research topics
Such project involves the following competencies:

- Image analysis (using Google Vision API for example)
- Semantic Web
- Web crawling
- Spatiotemporal information
- Deep learning
- Social Computing
- Middleware

Technological aspects: Image analysis (CBIT, Google Visio API), Data Representation (NoSQL DB ElasticSearch), Spatiotemporal design, WURFL (Profile Design), Dynamic deployment, Context Design.

Project scope

Expected results

The objective is to obtain a functional prototype that help tourists to automatically receive suggestions based on their profiles enriched/specialized according to his cloud/locally stored pictures as well as those of their close relations.

The application will scan pictures hosted on the phone/personal cloud-space as well as those

taken on site and enrich the tourist's (seen as a mobile user) profile with his/her interests. An inference engine will semantically analyse the profile (expressed using WURFL), extract topics and crawl on the web in order to suggest suitable information. The application has to be generic enough, that means is not dedicated to a local zone but is useful for any type of travelers.

B3. Schedule, with main execution stages

WP0: Project Management

Leader: UPPA (Philippe Roose)

Partners: UCSP (Dennis Barrios Aranibar), USB (Yudith Cardinale)

This task is coordinated by the coordinator of the project (Philippe Roose - France). In order to achieve this task, he will be helped by each WP leaders. Each WP leader coordinates, animates, validates and ensures the scientific aspects of his WP. The role of project manager is to check that each WP is working correctly according to the established planning. In case of internal WP problem without consequences on others WP, the project manager with each WP leader will jointly look for solutions. If there are side effects on others WP, solutions will be established with all WP leaders. The project manager has to ensure the scientific animation and dynamics of WP and has to ensure the (internal) animation and dynamics of the whole project. He also has to ensure an external animation in order to give a national and international visibility to the project.

Each WP participant has to participate to virtual workshops 4 times/year. Such action has two objectives: getting information, knowledge, and critics on WP and the whole project. All WP leaders will have a virtual workshop with project leader 3 times/year in order to discuss about the project, the WPs and the necessary coordination between WP.

WP1: Image analysis

Leader: UPPA (Philippe Roose)

Partners: USB (Yudith Cardinale), UCSP (Raquel Patiño)

This task is coordinated by Philippe Roose. The main goal is to obtain descriptors of the images and to develop a Content Based Image Retrieval (CBIR) System that can return the best matched images related to pictures posted by a user and his friends [13-16]. CBIR is a technology that aims to organize images by its visual content like color, texture and shape. In a CBIR system, it is important to develop an indexing structure that permits to have "similar" images near each other. It is well known that in CBIR system one of the main problems is the "semantic gap", this means, how we identify (by using visual descriptors) that two images are near each other. In this sense, our proposal includes the use of deep learning for this task, and the use of the ontology developed in task WP2.

As this task is crucial for our proposition, a first prototype with picture analysis was implemented using Google Vision API (shown if Figure 2). It detects several common information on each picture in inject it on a simple ontology. We are now ambitioning to enrich analysis using other Microsoft and IBM Cognitive Services/API and crossing results. Of course, those analyses give a first profile, and according to results, a second step including previously described works, particularly on visual descriptors will enrich profiles and e-tourism ontology.

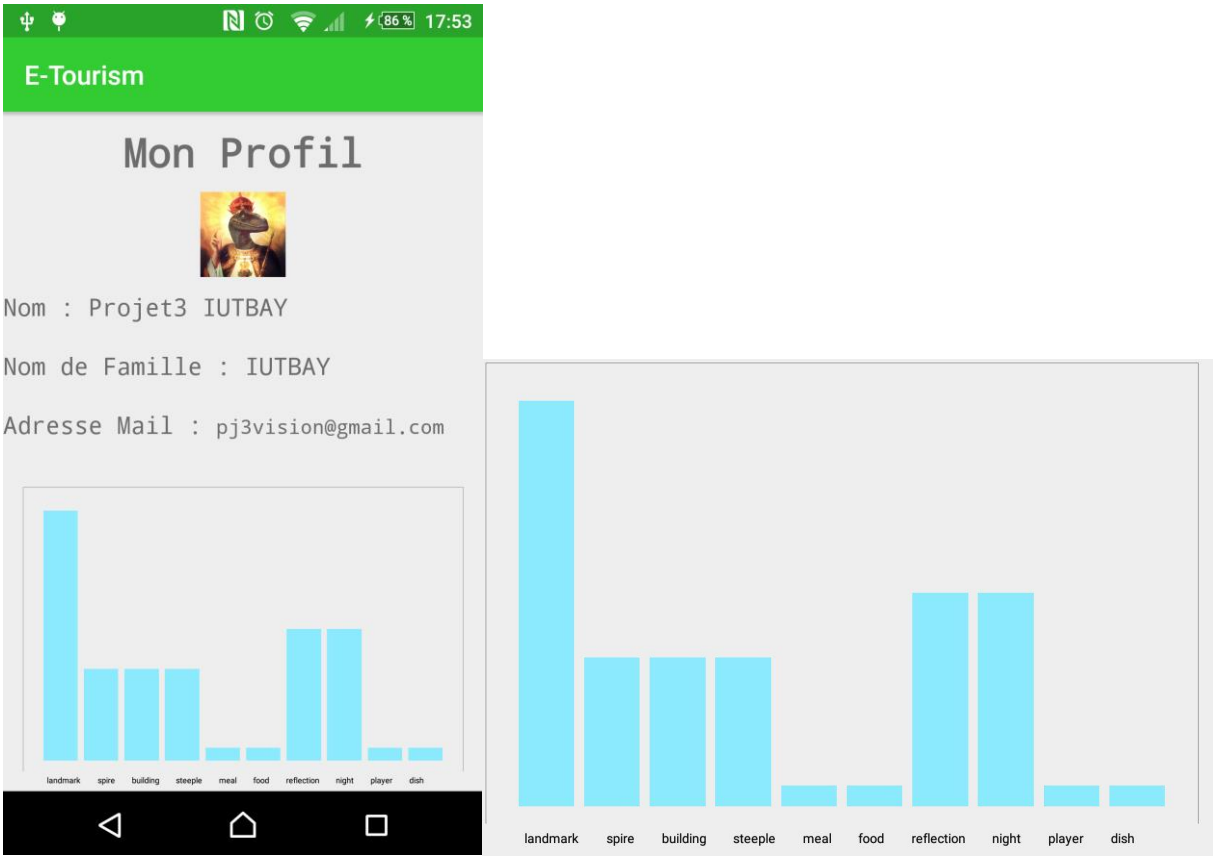


Figure 2: A Prototype for pictures analysis

WP2: Propose an e-tourism ontology

Leader: USB (Yudith Cardinale)

Partners: UCSP (Raquel Patiño, Regina Ticona), UPPA (Sébastien Laborie, Philippe Roose), UGA (Jérôme Gensel)

The goal of this task is to integrate and extend exhausting tourism ontology able to enrich existing one as well as including concepts in order to ensure deep learning and to integrate social aspects suitable. This ontology is based on Clancey's ontology of a generic tasks on tourism where we establish a correspondence between tourism knowledge base and the agent's behavior. The nature of the real world (of tourism) is the main principle for develop the ontology and not only the expertize of the agent, providing a rich vocabulary for knowledge and control and merging the reasoning and the representation. This ontology must be used jointly with visual descriptors for training deep learning algorithms in order to return better suggestions to users.

WP3: Inferences rules

Leader: UPPA (Sébastien Laborie)

Partners: UCSP (Dennis Barrios Aranibar, Raquel Patiño Escarcina, Regina Ticona), LIG (Jérôme Gensel), USB (Yudith Cardinale)

The objective of this part is to write "intelligent" rules (using RDF) in order to get semantic data

from the ontology (done on WP2) according to the tourist's profile/data extract from his/her pictures and according to social relations. The result of such rules will serve for the Programmable Web Crawling Engine in order to recommend suitable web sites and/or information and seeking for Mobile Apps able to be dynamically deployed using Kalimucho. Data extracted from rules will allow the engine configuration to facilitate information selection.

WP4: Programmable Web Crawling Engine

Leader: UCSP (Hernán Humberto Álvarez)

Partners: UCSP (Hernán Humberto Alvarez), UPPA (Sébastien Laborie)

The objective of this task is to develop a web crawler for finding web sites and mobile apps related to information contained in the profile data of users. The web crawler must find information that reflects results related to: i) preferences of the user, ii) analysis of the profile and metadata returned by the CBIR System, iii) ontology implemented in WP3, and iv) inferences rules developed in WP4.

WP5: Dynamic & Plastic User Interface

Leader: UPPA (Philippe Lopistéguy)

Partners: UCSP (Hernán Humberto Alvarez), UPPA (Philippe Lopistéguy)

The objective here is to propose an interface able to be adapted to contextual use. The adaptation can be applied on its design as well as on its interactions capabilities. We aim to propose a plastic Human-Computer Interface (HCI) able to suit to mobile device and contextual use (including high level of luminosity, low battery or bandwidth). This phase includes the analysis of plasticity preoccupation as well as proxemics properties, in which we are currently working on.

The second aspect of the interface is to monitor user interactions to identify which recommendations are really interesting for him/her and to refine his/her profile in order to increase the future recommendations.

Once launched, the interface will call rules implemented on WP3 and crawl for the web using WP4 web crawling engine in order to recommend user-centric points of interest.

The interface will also get spatiotemporal data (GPS position, movement, direction, time, date, etc.) to send-back to the crawling engine that information and refine the selection of websites/information.

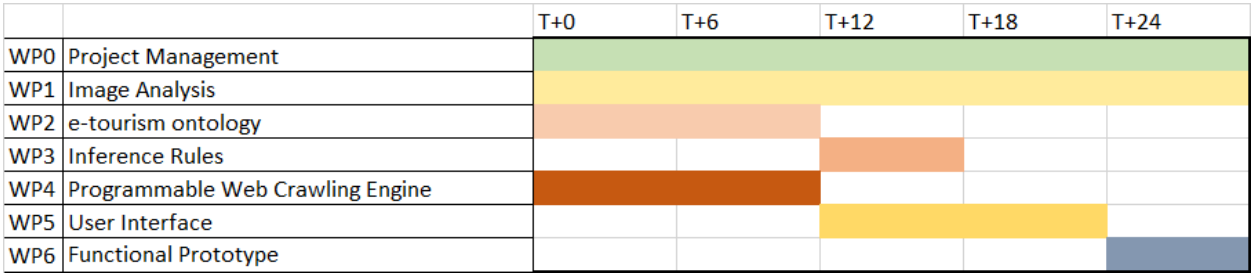
The dynamism and plasticity of the interface will permit to offer interactions to the user according to its environment, data, and mobile apps provided. For example, if the result of a request is a multimedia document containing sound, this must not be useful while the tourist is walking. Then a dynamic adaptation of the interface to display the video while calling automatic translating (*speech2txt*) is then interesting. Another scenario is switching from tactile interactions to vocal ones if the tourist retrieves information while he is driving.

WP6: Functional Prototype

Leader: UCSP (Dennis Barrios Aranibar)

Partners: UPPA (Philippe Lopistéguy), USB (Yudith Cardinale), UCSP (Hernán Humberto Álvarez)

The objective of this part is to integrate all components of the project into a functional prototype and test it with data and users of the four countries involved in this project (France, Ecuador, Peru, and Venezuela).



Risks

The first risk identified is related to the capability of retrieving pertinent information from pictures and their metadata. However, the 'simple' first prototype developed allowed us to ensure the factibility of such analysis to enrich profiles according to touristic ontologies. First results are very encouraging since they show the potential of our PaSEa system..

The second risk is related to the capability to crawl the web according to user (profile) requirements and retrieve pertinent information. Current works of Yudith Cardinale and Sebastien Laborie on such subjets also ensure us to be able to get data if the profile is enough complete.

The last risk is about implementation. The risk has been minimized with previous prototypes but some uncertainty remain with multiple API calls and therefore the coherency of image analysis (vocabulary coherency) and time response.

References

[1] Romero D.M., Galuba W., Asur S., & Huberman B.A. (2011) Influence and Passivity in Social Media. In: *Gunopulos D., Hofmann T., Malerba D., Vazirgiannis M. (eds) Machine Learning and Knowledge Discovery in Databases*. Lecture Notes in Computer Science, vol 6913. Springer, Berlin, Heidelberg.

[2] Buhalis, D., & Jun, S. H. (2011). E-tourism. *Contemporary tourism reviews*, 2-38.

[3] Chiabai, A., Platt, S., & Strielkowski, W. (2014). Eliciting users' preferences for cultural heritage and tourism-related e-services: a tale of three European cities. *Tourism Economics*, *20*(2), 263-277.

[4] Fermoso, A. M., Mateos, M., Beato, M. E., & Berjón, R. (2015). Open linked data and mobile devices as e-tourism tools. A practical approach to collaborative e-learning. *Computers in Human Behavior*, *51*, 618-626.

[5] García-Crespo, A., Chamizo, J., Rivera, I., Mencke, M., Colomo-Palacios, R., & Gómez-Berbís, J. M. (2009). SPETA: Social pervasive e-Tourism advisor. *Telematics and Informatics*, *26*(3), 306-315.

[6] Ku, E. C., & Chen, C. D. (2015). Cultivating travellers' revisit intention to e-tourism service: the moderating effect of website interactivity. *Behaviour & Information Technology*, *34*(5), 465-478.

[7] Murphy, P. E. (2013). Tourism: A community approach (RLE Tourism). *Routledge.*

[8] Pantano, E., & Di Pietro, L. (2013). From e-tourism to f-tourism: emerging issues from negative tourists' online reviews. *Journal of Hospitality and Tourism Technology*, *4*(3), 211-227.

[9] Sebastia, L., Garcia, I., Onaindia, E., & Guzman, C. (2009). e-Tourism: a tourist recommendation and planning application. *International Journal on Artificial Intelligence Tools*, *18*(05), 717-738.

[10] Karchoud, R., Roose, P., Dalmau, M., de Courchelle, I., & Dibon, P. (2015). Kalimucho for smart-*: One step towards eternal applications. *Industrial Technology (ICIT) IEEE* pp. 2426-2432.

[11] Karchoud, R., Roose, P., Dalmau, M., Illaramendi, A., & Ilarri, S. (2016). Long Life Application: Approach for User Context Management and Situation Understanding. In *Ubiquitous Computing and Communications and 2016 International Symposium on Cyberspace and Security (IUCC-CSS), International Conference on* (pp. 45-53). IEEE.

[12] Ghada Ben Nejma, Philippe Roose, Marc Dalmau, Jérôme Gensel – *Service Discovery for Spontaneous Communities in pervasive environment* – Special Session on Decentralized Social Networks – 16th Web Information Systems Engineering (WISE 2015) – Lecture Notes in Computer Science ed. (LNCS) N° 9418 – pp.337-347 – ISBN 978-3-319-26187-4 – Miami, Florida, November 1-3 2015

[13] Mohanan, A., & Raju, S. (2017). A Survey on Different Relevance Feedback Techniques in Content Based Image Retrieval.

[14] Jain, M., & Singh, D. (2016). A Survey on CBIR on the Basis of Different Feature Descriptor. *British Journal of Mathematics & Computer Science*, *14*(6), 1.

[15] Velmurugan, K. (2014). A survey of content-based image retrieval systems using scale-invariant feature transform (sift). *International Journal of Advanced Re-search in Computer Science and Software Engineering*, *4*.

[16] David Zaragoza; Yudith Cardinale; Marta Rukoz. (2015) SimSearch: Similarity Search Framework Based on Indexing Techniques in Metric Spaces. *The 7th International Conference on Management of computational and collective IntElligence in Digital EcoSystems (MEDES'15)*. pp 90-97. Sao Paulo, Brazil. October 25-29.

[17] Clancey, W. J. (1985). Heuristic classification. *Artificial intelligence*, 27(3), 289-350.

[18] Scharffe, F., Zamazal, O., & Fensel, D. (2014). Ontology alignment design patterns. *Knowledge and information systems*, *40*(1), 1-28.

[19] Donzelli, C., Kidanu, S. A., Chbeir, R., & Cardinale, Y. (2016, November). Onto2MAS: An Ontology-Based Framework for Automatic Multi-Agent System Generation. In *Signal-Image Technology & Internet-Based Systems (SITIS), 2016 12th International Conference on* (pp. 381-388). IEEE.

[20] Campos, J., Cardinale, Y., & Hernández, E. (2012). Arquitectura para Consulta de Imágenes Médicas Anotadas en un GRID: Servicios Basados en Ontologías.

[21] Amaro, A., Flaviani, F., Figueroa, A., De Valencia, R., & Cardinale, Y. Ontologıa para las Manifestaciones Rupestres en Venezuela.

B4. Contributions

Originality

The main originality of this project is to enrich profile with picture analysis, as it is an assertion. The other original aspect is its genericity as it is not dedicated to one type of touristic place nor activity.

Present contributions so as to highlight the role of each partner and the integration among partners.

WP0 - UPPA (Philippe ROOSE) is the international coordinator. He used to manage project as he was leader of several project involving many university, research team and people. As he speaks French, Spanish & English, he can discuss and exchange easily with all participants.

WP1 - Philippe Roose is not a specialist of image analysis but has a significant knowledge as well as a good knowledge of Vision oriented API as well as Social API from Google, HP, IBM

and Microsoft. This WP role is important in the project in order to analyze pictures taken by tourists, and according to WP2, identifying and selecting artifact to fill-in tourism oriented ontology (WP2) and helping in Defining Inference Rules (WP3)

WP2: Yudith Cardinale is a specialist of ontologies, she has a significant knowledge in rock art, smart buildings, and digital ecosystems ontologies. Her role will be to analyze and design the e-tourism ontology that will be used by Defining Inference Rules (WP3) and Web Crawling Engine (WP4).

WP3 - UPPA (Sébastien Laborie) will base his work in the ontology according to concepts and classes identified in collaboration with WP2 & WP1. His role will be to identify and write rules (in RDF) that will be executed by the Web Crawling Engine (WP4) to select corresponding interesting information for tourists.

WP4 - UCSP (Hernán Humberto Alvarez) has the objective to select crawling engine and update them to include rules written in WP3. This Task is crucial as it starts the "practical" aspects of the project by selecting information and recommend them to tourists.

WP5 - UPPA (Philippe Lopistéguy) has the objective to design the interface facing with some constraints as to evolve dynamically according to returned information and according to mobile situation (the plasticity of the interface is different according to the device, but also according to the current situation (in the hotel, walking, in the car, with low battery or low bandwidth, etc.

B5. Regional Aspects

Since several years, our Universities are in touch. Yudith Cardinale (Venezuela) went for a long period in our laboratory whereas Regina Ticona (Peru) did her PhD too in our laboratory. Since the beginning of 2016, we have discussions with Hernan Humberto Alvarez (Peru). This latter will starts his PhD next September.

Since several years, UPPA is strongly involved in collaboration with Countries from South-America. We have many scientific and pedagogical collaborations with Chile, Argentina, Cuba, México, Perú, Ecuador, Venezuela.

Such project will be the support for the PhD and will increase the already started collaboration. We also hope to develop the exchange of researchers as well as teachers and therefore students (including post-graduates).

The interest for this subject is also on its theme itself. All countries involved in this project are strongly attractive for tourism. The result of such project can be useful to propose new kind of applications suitable for people visiting regions. Moreover, even if we know each other, we did not have the opportunity to work together even if our research domains are very complementary. The AMSTIC Call is an important opportunity to start a long-term collaboration and initiate more ambitious project. We aim at collaborating further and initiate PhD co-supervision between our countries.

B6. Institutions and CVs of coordinators

see. at the end of the document

B7. Additional information

Yudith Cardinale already went to the LIUPPA/University of Pau as invited researcher.

Philippe Roose and Dennis Barrios are currently working on a PhD funding (the subject is ready and strongly correlated to this project) - PhD candidate is Hernan Humberto Alvarez. We are in touch with French Embassy for complementary funding.

List all the complementary funding expected or already obtained.

In Perú we have a call for projects of basic and applied research (http://www.cienciactiva.gob.pe/cienciactiva/convocatorias/investigacion-cientifica/proyectos-de-investigacion-basica-y-proyectos-de-investigacion-aplicada), with deadline in July 22th, and with funds of S/. 400000.00 (Peruvian soles), we are planning to participate in this call and obtain the funding to complement this research with doctoral and master scholarships.

Experience of the coordinators in similar projects.

LIUPPA / Université de Pau et des Pays de l'Adour

- FEDER *TCPPYR* - European Project – **Partner (2017-2020)**
- ANR Project *Models & Tools for Pervasive Applications focusing on Territory Discovery* – **Leader (2010-2014)**
- Project « T2I-Transmedia-IBIS » **– Incentive Research Project –** *Geographical description of fauna and flora for selected species* (partners: UNaM – University of Misiones, Argentina) ; LIUPPA/T2I, France) - **Leader** (2015-2016)

Present main activities and their relationship with the project's main goal.

The FEDER TCPPYR project is dedicated to an inventory of thermal oriented cities around Pyrénées Mountains. This project involves historians, geographers, anthropologists and computer scientists. The final application is a mobile application for tourists in order to guide them in discovering thermal curiosity according to their localization and locomotion wishes. A postdoctoral position will be dedicated to this task (position opened in June). In the project T2I-Transmedia-IBIS we implemented an information system (ontology based) in order to describe fauna & flora species with geographic meta-data.

In the ANR MOANO Project, we particularly worked on users' profiles, design on ontologies and provided web services in order to process natural languages requests. Such tasks are also very interesting for this current project. We also worked on Spontaneous Communities.

The collaboration will be re-enforced by the associated PhD. At the end of the project we aim at proposing more ambitious project but also working on pedagogical aspects in order to help in teachers and researchers' mobility as well as for students, as we did with Mexico, Chile and Argentina for example.

B8. International referees

Suggest names of at least 3 international referees to evaluate the project. These researchers should not be connected to people in the project.

1- Romain Rouvoy, University of Lille, France

2- Sergio Ilarri, University of Zaragoza, Spain

3- Cristian Durán Faúndez, University of the Bío-Bío, Concepción, Chile

Names of referees who should not review this project in your opinion (optional)

1- None

2-

C. Project Budget

Project title: PaSEo - Profile generation **A**nd content **S**uggestion on **E**-T**O**urism

Participating institutions:

- Universidad Católica San Pablo (Perú) : UCSP
- Université de Pau et des Pays de l'Adour (France) : UPPA
- Universidad de Simón Bolívar (Venezuela) : USB
- Université Pierre Mendès France (france) : UPMF

C1. First year (2018)

Planned missions – Year 1

Researcher	Status (student, junior, senior)	Institution	Origin	Destination	Planned date	Duration (max. 30 days)	Estimated cost of the trip (€)	Estimate of total *per diem* (€)	Trip and Mission funding institution[2]	Mission objectives
Philippe Roose	Senior	UPPA	Anglet	Arequipa	2018	10	1500	1200	MAEDI	**WP0 - Project Management Kick Off Meeting**
Lopisteguy	Senior	UPPA	Anglet	Arequipa	2018	10	1500	1200	MAEDI	**WP2 - Collaboration**
Philippe Roose	Senior	UPPA	Anglet	Caracas	2018	10	1500	1200	MAEDI	**WP0 - Project Management**
Philippe Lopisteguy	Senior	UPPA	Anglet	Caracas	2018	10	1500	1200	MAEDI	**WP2 - Collaboration**

[2] **Each institution will pay for the trip and per diem of its own researchers.**

Sébastien Laborie	Senior	UPPA	Anglet	Arequipa	2018	10	1500	1200	MAEDI	**WP3: Collaboration**
Jérôme Gensel	Senior	UGA	Genoble	Arequipa	2018	10	1200	1200	CNRS	**WP2&3: Collaboration**
Raquel Patiño Escarcina	Senior	UCSP	Arequipa	Caracas	2018	10	600	350	Concytec	**WP1 - Collaboration**
Dennis Barrios Aranibar	Senior	UCSP	Arequipa	Caracas	2018	10	600	350	Concytec	**WP2 - Collaboration**
Regina Ticona Herrera	Senior	UCSP	Arequipa	Anglet	2018	10	1500	2200	Concytec	**WP2 - Collaboration**
Hernán Humberto Alvarez Valera	Student	UCSP	Arequipa	Anglet	2018	10	1500	2200	Concytec	**WP5 - Collaboration**
Yudith Cardinale	Senior	USB	Caracas	Arequipa	2018	7	450	1050	MPPEUCT	**Kick Off Meeting WP1- Collaboration**
Yudith Cardinale	Senior	USB	Caracas	Anglet	2018	10	2300	2200	MPPEUCT	**WP0- Initial Steps**

CONSOLIDATED BUDGET: Year 1

Funding requested to the STIC-AmSud Program
Estimated costs (€)

	A. Travel costs (air tickets)	B- Maintenance costs (*per diem*)	**TOTAL**
MAEDI France	7500	5000	12500
CNRS France	1200	1200	2400
INRIA France			
Institut Mines-Télecom France			
MINCYT Argentina			
CAPES Brazil			
CONICYT Chile			
CONACYT Paraguay			
CONCYTEC Peru	4200	5100	9300
ANII Uruguay			
MPPEUCT Venezuela	5500	6500	12000
SENESCYT Ecuador			
COLCIENCIAS Colombia			
Total requested funding to STIC-AmSud			
Other funding[3]			
TOTAL			

Do you have additional funding sources for this project[4]? (if so please specify the amount and source (s)).

[3] Specify in additional page.

[4] Reserved for CNRS researchers

C2. Second year (2019)

Second year funding depends on approval of intermediate progress report.

Planned missions – Year 2

Researcher	**Status (student, junior, senior)**	**Institution**	**Origin**	**Destination**	**Planned date**	**Duration (max. 30 days)**	**Estimated cost of the trip (€)**	**Estimate of total *per diem* (€)**	**Trip and Mission funding institution[5]**	**Mission objectives**
Philippe Roose	Senior	UPPA	Anglet	Caracas	2019	10	1500	1200	MAEDI	**WP0 - Project Management** **Kick Out Meeting (closure)**
Philippe Lopisteguy	Senior	UPPA	Anglet	Caracas	2019	10	1500	1200	MAEDI	**Kick Out Meeting (closure)** **WP2 - Collaboration**
Sébastien Laborie	Senior	UPPA	Anglet	Arequipa	2019	10	1500	1200	MAEDI	**WP3: Colaboration**
Jérôme Gensel	Senior	UGA	Grenoble	Caracas	2019	10	1200	1200	CNRS	**WP2&3 : Collaboration** **Kick Out Meeting (closure)**
Dennis Barrios Aranibar	Senior	UCSP	Arequipa	Anglet	2019	10	1500	2200	Concytec	**WP3 - Collaboration**
Raquel Esperanza Patiño Escarcina	Junior	UCSP	Arequipa	Anglet	2019	10	1500	2200	Concytec	**WP3 - Collaboration**
Hernán Humberto Alvarez Valera	Student	UCSP	Arequipa	Caracas	2019	7	600	350	Concytec	**Kick Out Meeting (closure)** **WP6 - Collaboration**
Regina Paola Tocina Herrera	Senior	UCSP	Arequipa	Caracas	2019	7	600	350	Concytec	**WP6 - Collaboration**
Yudith Cardinale	Senior	USB	Caracas	Arequipa	2019	7	550	1300	MPPEUCT	**WP1 - Collaboration**
Yudith Cardinale	Senior	USB	Caracas	Anglet	2019	10	2400	2305	MPPEUCT	**WP6 - Collaboration**

[5] **Each institution will pay for the trip and per diem of its own researchers.**

CONSOLIDATED BUDGET: Year 2

Funding requested to the STIC-AmSud Program
Estimated costs (€)

	A. Travel costs (air tickets)	B- Maintenance costs (*per diem)*	**TOTAL**
MAEDI France	4500	3600	8100
CNRS France	1200	1200	2400
INRIA France			
Institut Mines-Télecom France			
MINCYT Argentina			
CAPES Brazil			
CONICYT Chile			
CONACYT Paraguay			
CONCYTEC Peru	4200	5100	9300
ANII Uruguay			
MPPEUCT Venezuela	5900	7210	13110
SENESCYT Ecuador			
COLCIENCIAS Colombia			
Total requested funding to STIC-AmSud			
Other funding[6]			
TOTAL			

Do you have additional funding sources for this project[7]? (if so please specify the amount and source (s)).

[6] Specify in additional page.

[7] Reserved for CNRS researchers

C3. BUDGET TOTALS

	Year 1	**Year 2**	**Total**
Funding requested to MAEDI (France)	12500	8100	20600
Funding requested to INRIA (France)			
Funding requested to CNRS (France)	2400	2400	4800
Funding requested to Institut Mines-Telecom (France)			
Funding requested to MINCYT (Argentina)			
Funding requested to CAPES (Brazil)			
Funding requested to CONICYT (Chile)			
Funding requested to CONACYT (Paraguay)			
Funding requested to CONCYTEC (Peru)	9300	9300	18600
Funding requested to ANII (Uruguay)			
Funding requested to SENESCYT (Ecuador)			
Funding requested to MPPEUCT (Venezuela)	12000	13110	25110
Funding requested to COLCIENCIAS (Colombia)			
Matching funds from the partners			
Other sources			
TOTAL			

ANNEX

Model CV (maximum 2 pages)

1/ Personal data

Name: ROOSE Philippe

Birth date: 14/05/1973

Professional address (with telephone and e-mail):

LIUPPA/IUT de Bayonne

2, allée du Parc Montaury

64600 Anglet - FRANCE

Current job title and size of the research group:

- ❑ Associate Professor
- ❑ Leader of the LIUPPA Lab - T2I Research Group (17 researchers, 12 PhD students)
- ❑ Head of the Computer Science Dpt (18 lecturers, 55 part-time lecturers)

2/ Highest obtained degree (with indication of place and date)

- ❑ Upper class thesis, Université de Pau et des Pays de l'Adour, France, 2008
- ❑ PhD, Université de Pau et des Pays de l'Adour, France, 2000

3/ Professional activity in the last 5 years

- ❑ Associate Professor since 2001
- ❑ Head of computer science dept. since 2013
- ❑ Leader of LIUPPA Lab/T2I research group since 2016

4/ Other duties/ positions

- ❑ Scientific Expert for Ministry of Education and Research

5/ Awards, fellowships and external recognition

- ❑ 3 international patents & a trademark for the Kalimucho Technology (with presentation in CES Las Vegas and Mobile World Congress in 2014)
- ❑ Excellence Grant (PEDR/PES) since 2006 for research involvement

- ❑ 9 Invited Talk since 2011

6/ Ongoing funded research projects with dates, titles, sources of funding

- **TCV-PYR** - Tourism valorization for thermal cities (2017-2020)
  - European FEDER, *Funding: 2000 K€*
- **POI Pyrénées** (2016-2017)
  - ❑ Incentive Project (Excellence Project) - UPPA, *Funding: 7,5 K€*
- **E-tourism Research Thematic development** (2016-2018)
  - ❑ Special Grant from Association of Metropolitan Areas, *Funding: 30 K€*
- **Long life application for Kalimucho Smart-* usage** (2014-2017)
  - ❑ International French-Spanish University PhD Grant, *Funding:100 K€*

7/ Projects approved in the least 5 years

- ❑ **ANR MOANO** – 2010-2014
  - ❑ Partners : University of Pau, University of Toulouse, University of Grenoble, INRIA (15 researchers) - *Funding: 640 K€*
- ❑ **PISCO - Design method and software platform for semi-automatic deployment of pervasive applications** - Regional Project (2011-2014)
  - ❑ Partners : University of Pau, Aquitaine Region - *Funding : 15 K€*
- ❑ **Kalimucho Technological Transfer** (2013 - 2015)
  - ❑ Partners University of Pau, AST Innovation (SATT Aquitaine), *Funding*: 300 K€

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- ❑ Karchoud Riadh, Roose Philippe, Dalmau Marc, Illaramendi Arantza, Ilarri Sergio – Long Life Application: Approach for User Context Management and Situation Understanding – Proceedings – 15th International Conference on Ubiquitous Computing and Communications and 2016 8th International Symposium on Cyberspace and Security, IUCC-CSS 2016, art. no. 7828582 , pp. 45 – 53, 2016
- ❑ Adel Alti, Sébastien Laborie, Philippe Roose – A Community-Based Semantic Social Context- Aware Driven Adaptation for Multimedia Documents – International Journal of

Virtual Communities and Social Networking, 7(2), pp. 31-49 – DOI: 10.4018/IJVCSN.2015040102 – April-June 2015;

- ❏ Ghada Ben Nejma, Philippe Roose, Marc Dalmau, Jérôme Gensel – Service Discovery for Spontaneous Communities in pervasive environment – Special Session on Decentralized Social Networks – 16th Web Information Systems Engineering (WISE 2015) – Lecture Notes in Computer Science ed. (LNCS) N° 9418 – pp.337-347 – ISBN 978-3-319-26187-4 – Miami, Florida, November 1-3 2015
- ❏ Keling Da, Marc Dalmau, Philippe Roose – Kalimucho : Middleware for Mobile Applications – ACM SAC 2014 – pp. 413-419 – ACM Press – 24-28/03 – Gyeongju, Korea, 2014

8.2 – Publications in cooperation with the project partners

9/ Theses oriented and post-doctoral fellows supervised

- ❏ 2016-2020: José Manuel Negrete Ramirez, supervision with Marc Dalmau – *Distributed Interfaces and Context-oriented broadcast services in a smart-home environment* – Mexican Government Grant (CONACYT)
- ❏ 2014-2017: Riadh Karchoud, supervision with Marc Dalmau and Arantza Illarramendi (UPV/Spain) – *Long life application for Kalimucho Smart-* usage* – International French-Spanish University Grant

9.1 – Finished/defended in the last 5 years

- ❏ 2015: Ghada Ben Nejma, supervision with Marc Dalmau and Jérome Gensel (LIG Lab – Grenoble) – *Applications communautaires spontanées dynamiquement reconfigurables en environnement pervasif (Spontaneous social applications dynamically reconfigurable in pervasive environment)* – ANR MOANO Project
- ❏ 2014: Keling Da, supervision with Marc Dalmau, Kalimucho-A : *Autonomic Knowledge-based context-driven adaptation platform*
- ❏ 2012: Makhlouf Derdour , supervision with Marc Dalmau & Nacira Ghoualmi (Algeria) – « *Modélisation et implémentation d'un système d'information de gestion de flux multimédia pour des architectures logicielles intégrant des capteurs sans-fil mobiles* » (Design and implementation of Multimedia Data Flows Information System for Mobile

Devices)

9.2 – Ongoing

- ❏ 2016-2020: José Manuel Negrete Ramirez, supervision with Marc Dalmau and Philippe Lalanca (LIG/ADELE) – *Distributed Interfaces and Context-oriented broadcast services in a smart-home environment* – Mexican Government Grant (CONACYT)
- ❏ 2014-2017: Ayoub Yahiaoui, supervision with Hakim Bendjenna (University Larbi Tbessi, Tébessa, Algeria) – *Requirements Engineering for selt-adaptative systems*
- ❏ 2014-2017: Riadh Karchoud, supervision with Marc Dalmau and Arantza Illarramendi (UPV/Spain) – *Long life application for Kalimucho Smart-* usage* – International French-Spanish University Grant
- ❏ 2014-2017: Zaineb Liwen – *Specification and Evaluation of Human Behavior Scenario in e-Health Smart Environments*. French supervision with Tayeb Lemlouma and Frédéric Weis ; Tunisian supervision with Pr. M. Hassani, France-Tunisia Collaboration.

1/ Personal data

Name: Álvarez Valera Hernán Humberto

Birth date: 24/12/1988

Professional address (with telephone and e-mail):

- San Pablo Catholic University.
  Quinta Vivanco s/n , Urb. Campiña Paisajista, Arequipa Perú
  hhalvarez@ucsp.edu.pe 5154 - 605600

- LARVIC (Grupo de investigación en la línea de automatización industrial robótica y visión computacional)
  Av. Salaverry 511 Arequipa - Perú 5154 - 605600 - Anx - 268

Current job title and size of the research group:

Partial time professor of the Computer Science Dpt. in the Catholic San Pablo University.
Researcher of the LARVIC group in the Operating systems topic.

2/ Highest obtained degree (with indication of place and date)

Computer Scientist recognized by the nation of Perú

3/ Professional activity in the last 5 years

- Programmer - Researcher in the FINCyT PIPEA Convenio-138 CHATSFORD PISCO PROJEC - San Agistin University - 2011 to 2013.
- Programmer - Researcher in the AksonBot project - San Pablo Catholic University - 2013 to 2016.
- Analyst - Programmer - Mito Agro - 2014 to 2014
- Analyst Programmer - Full Agrícola - 2011 to 2011
- Partial time professor - San pablo Catholic University - Since 2013 to Nowadays

4/ Other duties/ positions

- Researcher in the LARVIC group.

5/ Awards, fellowships and external recognition

6/ Ongoing funded research projects with dates, titles, sources of funding

7/ Projects approved in the least 5 years

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- Hernán Humberto Álvarez Valera "GOSTH TIGER Virtual Parallel System" - JPC 2011.
- Hernán Humberto Álvarez Valera, Claudia Cervantes Jilaja, Emil Emmanuel Cuadros Zegarra, Edwin Bolivar Vilca - "Automation of Chestnuts Selection Process using Computer Vision" - 2015 12th Latin American Robotics Symposium and 2015 3rd Brazilian Symposium on Robotics (LARS-SBR) (Oct 2015).
- Hernán Humberto Álvarez Valera, Edwin Bolivar Vilca, Claudia Cervantes Jilaja, Emil Emmanuel Cuadros Zegarra - "An Architecture for Computational Control of an Industrial Machine for Classifying Chestnuts" - 2015 12th Latin American Robotics Symposium and 2015 3rd Brazilian Symposium on Robotics (LARS-SBR) (Oct 2015).

8.2 – Publications in cooperation with the project partners

9/ Theses oriented and post-doctoral fellows supervised

9.1 – Finished/defended in the last 5 years

9.2 – Ongoing

1/ Personal data

Name: Raquel Esperanza Patiño Escarcina

Birth date: 15/12/1978

Professional address (with telephone and e-mail):

Universidad Católica San Pablo, Campus San Lázaro

Quinta Vivanco s/n, Urb. Campiña Paisajista, Arequipa

Telephone: +51 - 54 - 605600 annex 268

email: rpatino@ucsp.edu.pe

Current job title and size of the research group:

- ❑ Assistant Professor
- ❑ Co-Leader of LARVIC Research Group (4 researchers, 24 students and graduate junior researchers)

2/ Highest obtained degree (with indication of place and date)

- ❑ D.Sc. in Computing and Electrical Engineering, Universidade Federal do Rio Grande do Norte, Brasil, 2009

3/ Professional activity in the last 5 years

- ❑ Professor at Universidad Católica San Pablo since 2009
- ❑ Researcher at Universidad Católica San Pablo since 2012
- ❑ Researcher, and project leader at Software Development Center of Catedra Concytec in Universidad Nacional de San Agustín, 2009 - 2012

4/ Other duties/ positions

- ❑ Asesor in Computer Vision in project entitled “Diseño del sistema de percepción de 3 robots móviles para el proyecto de investigación desarrollo de una flota de robots terrestres semi-autónoma, controlada por una central móvil, para búsqueda de personas”, Universidad Católica San Pablo, 2013-2015
- ❑ Asesor in computer Vision in project entitled “Técnicas de Inteligencia Artificial - Sistemas Expertos, para el proyecto de investigación Mejora del proceso de acondicionamiento y dosificación de muestras de minerales en Laboratorios Químicos”, J Ramón del Perú S.A.C. – Lima – Perú, 2012

5/ Awards, fellowships and external recognition

- ❑ Award to woman researchers in peruvian universities, 2012. (Reconocimiento de Mujeres Científicas en la Investigación Universitaria 2012. Asamblea Nacional de Rectores, Lima

– Perú)

- ❑ Second Place in "**Innóvate 2015: Mérito a la innovación"** Award, for the project entitled: "***DESARROLLO DE COMPONENTES MECATRÓNICOS BASADOS EN VISIÓN ARTIFICIAL INTELIGENTE, PARA LA OPTIMIZACIÓN DEL PROCESO DE SELECCIÓN DE CASTAÑAS"*** with contract number **134-FINCyT-PITEA-2010.**

6/ Ongoing funded research projects with dates, titles, sources of funding

7/ Projects approved in the least 5 years

- ❑ Mejora del proceso de desvalvado de conchas de abanico mediante la automatización, optimizando el proceso primario. 2011 - 2014, Funding Agency: FINCyT-FIDECOM.
- ❑ Mejora del proceso de selección y codificación de conchas de abanico utilizando técnicas de visión artificial. 2011 - 2014, Funding Agency: FINCyT-FIDECOM.
- ❑ Desarrollo de componentes mecatrónicos basados en visión artificial para la optimización del proceso de selección de castañas. 2011 - 2014, Funding Agency: FINCyT-FIDECOM.

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- ❑ Region-based image retrieval using color and texture features on irregular regions of interest. Y Velazco-Paredes, R Flores-Quispe, RE Patino Escarcina. Communications and Computing (COLCOM), 2015 IEEE Colombian Conference on, 1-6
- ❑ Classification of human parasite eggs based on enhanced multitexton histogram. R Flores-Quispe, Y Velazco-Paredes, REP Escarcina, CAB Castañon. Communications and Computing (COLCOM), 2014 IEEE Colombian Conference on, 1-6
- ❑ DIRECTED MOVEMENT OF A FINGER MECHATRONIC TO IMPROVE THE VISIBILITY OF ARGOPECTEN PURPURATUS'S KIDNEY USING COMPUTER VISION. S Castelo-Quispe, R Flores-Quispe, Y Velazco-Paredes, , RE Patino Escarcina. Transactions on Business and Engineering Intelligent Applications, 98
- ❑ Optimization of Brazil-Nuts Classification Process through Automation using Colour Spaces in Computer Vision. S Castelo-Quispe, J Banda-Tapia, M López-Paredes, RE Patino Escarcina. Int. Journal of Computer Information Systems and Industrial. 2013
- ❑ A GH-SOM optimization with SOM labelling and dunn index. AB Garay, GP Contreras, RP Escarcina. Hybrid Intelligent Systems (HIS), 2011 11th International Conference on, 572-577
- ❑ Automation of the brazil-nuts classification process using dynamic level set SC Quispe,

JDB Tapia, MNL Paredes, D Barrios-Aranibar, RP Escarcina Hybrid Intelligent Systems (HIS), 2011 11th International Conference on, 540-545

1/ Personal data

Name: Dennis Barrios Aranibar

Birth date: 02/04/1979

Professional address (with telephone and e-mail):

Universidad Católica San Pablo, Campus San Lázaro

Quinta Vivanco s/n, Urb. Campiña Paisajista, Arequipa

Telephone: +51 - 54 - 605600 annex 268

email: rpatino@ucsp.edu.pe

Current job title and size of the research group:

- ❏ Assistant Professor
- ❏ Leader of LARVIC Research Group (4 researchers, 24 students and graduate junior researchers)

2/ Highest obtained degree (with indication of place and date)

- ❏ D.Sc. in Computing and Electrical Engineering, Universidade Federal do Rio Grande do Norte, Brasil, 2009

3/ Professional activity in the last 5 years

- ❏ Professor at Universidad Católica San Pablo since 2009
- ❏ Researcher at Universidad Católica San Pablo since 2012
- ❏ Researcher, and project leader at Software Development Center of Catedra Concytec in Universidad Nacional de San Agustín, 2009 - 2012

4/ Other duties/ positions

- ❏ Asesor in computing and robotics technology in Akson Perú S.R.L. Since 2009

5/ Awards, fellowships and external recognition

6/ Ongoing funded research projects with dates, titles, sources of funding

- ❏ Desarrollo de una flota de robots terrestres semi-autónoma, controlada por una central móvil, para búsqueda de personas. since 2013, Funding Agency: FINCyT-PIAP.
- ❏ Desarrollo de un kit de robótica educativo, con mejores características tecnológicas y versatilidad de materiales y con facilidad para el soporte técnico. since 2013 Funding Agency: FINCyT-FIDECOM-PIMEN.

7/ Projects approved in the least 5 years

- ❏ Mejora del proceso de desvalvado de conchas de abanico mediante la automatización, optimizando el proceso primario. 2011 - 2014, Funding Agency: FINCyT-FIDECOM.
- ❏ Mejora del proceso de selección y codificación de conchas de abanico utilizando técnicas de visión artificial. 2011 - 2014, Funding Agency: FINCyT-FIDECOM.
- ❏ Desarrollo de componentes mecatrónicos basados en visión artificial para la optimización del proceso de selección de castañas. 2011 - 2014, Funding Agency: FINCyT-FIDECOM.

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- ❏ A New Improvement of Human Bodies Detection C Cervantes-Jilaja, M Tejada-Begazo, RE Patiño-Escarcina, D Barrios-Aranibar. 2015 12th Latin American Robotics Symposium and 2015 3rd Brazilian Symposium
- ❏ Morphological Operators Applied to Human Body Detection HOG Method Improvement. M Tejada-Begazo, C Cervantes-Jilaja, RE Pati, D Barrios-Aranibar. 2015 12th Latin American Robotics Symposium and 2015 3rd Brazilian Symposium
- ❏ Optimal selection of factors using Genetic Algorithms and Neural Networks for the prediction of students' academic performance. OA Echegaray-Calderon, D Barrios-Aranibar. 2015 Latin America Congress on Computational Intelligence (LA-CCI), 1-6
- ❏ Sonia Castelo-Quispe, Roxana Flores-Quispe, Yuber Velazco-Paredes, Raquel Esperanza Patiño-Escarcina, Dennis Barrios-Aranibar. Directed movement of a finger mechatronic to improve the visibility of argopecten purpuratus's kidney using computer vision. In: Transactions on Business and Engineering Intelligent Applications Journal, 2014, p 98
- ❏ Roy Perez-Pinto, Christian Portugal-Zambrano, Dennis Barrios-Aranibar. Automatic classification of agro-industrial products through dynamic membership functions in Fuzzy logic systems: An approach to Scallops. In: Informatica (CLEI), 2012 XXXVIII Conferencia Latinoamericana Em.
- ❏ July Diana Banda-Tapia, Regina Ticona Herrera, Dennis Barrios-Aranibar Joe Tekli, Richard Chbeir. A multi-level fuzzy logic scheme for modeling complex problems In: Artificial Intelligence Driven Solutions to Business and Engineering Problems Book – ITHEA. ed. Galina Setlak, Mikhail Alexandrov, Krassimir Markov. P. 2012. 54-60.
- ❏ Alexander Rodriguez, Alicia Diaz-Zea, Roxana Flores, Medardo Delgado, Dennis Barrios-Aranibar, Raquel Patino. Argopecten Purpuratus Codification Based on

Determination of Weight by Conversion and Adjustment Factors. In: Proceedings of the 2011 30th International Conference of the Chilean Computer Science Society.

1/ Personal data

Name: TICONA HERRERA Regina Paola

Birth date: 30/04/1979

Professional address (with telephone and e-mail):

a) LIUPPA/IUT de Bayonne
ESTIA, École Supérieure des Technologies Industrielles Avancées
Technopôle Izarbel,
64210 Bidart, France - Bureau 210, Bât. 2
email: r.ticona@net.estia.fr

b) Universidad Católica San Pablo, Campus San Lázaro
Quinta Vivanco s/n, Urb. Campiña Paisajista, Arequipa
email: rticona@ucsp.edu.pe

Current job title and size of the research group:

- ❏ Associate Researcher - Research UPR of ESTIA
- ❏ Invited Professor, ESTIA, École Supérieure des Technologies Industrielles Avancées
- ❏ Member - T2I Research Group (17 researchers, 10 PhD students)
- ❏ Assistant Professor, Universidad Católica San Pablo (with licence until finishing the postdoc, retaking my activities in August 2017)
- ❏ Member of LARVIC Research Group (4 researchers, 24 students and graduate junior researchers)

2/ Highest obtained degree (with indication of place and date)

- ❏ PhD in Computer Science, Université de Pau et des Pays de l'Adour, France, 2016.

3/ Professional activity in the last 5 years

- ❏ Associate research in ESTIA Research 2016/2017
- ❏ Invited professor in ESTIA 2016/2017
- ❏ PhD student at Université de Pau et des Pays de l'Adour since 2013 until 2016
- ❏ Assistant Professor at Universidad Católica San Pablo since 2004 until 2012
- ❏ Researcher at Universidad Católica San Pablo since 2010 until 2012

- ❑ Member of Quality Committee of Professional Program of Computer Science since 2007 until 2012
- ❑ Professor. No State Technological Institute of South since 2007 until 2011
- ❑ Coordinator of Professional Programs of Computer Science and Industrial Engineering since 2007 until 2011

4/ Other duties/ positions

5/ Awards, fellowships and external recognition

- ❑ PhD scholarship abroad granted by the Peruvian Government (Fincyt). 2014.
- ❑ Franco Peruano "Raúl Porras Barrenechea" Award for Doctoral Training University teachers. 2012
- ❑ First place nationally in the category Business Plan based on Information Technology and Communications granted by the Inter-American Development Bank (BID) and the Pontificia Universidad Catolica del Peru (PUCP). 2004
- ❑ Fifth nationally in the category Prototypes for granted by the Inter-American Development Bank (IDB) and the Pontificia Universidad Catolica del Peru (PUCP). 2004

6/ Ongoing funded research projects with dates, titles, sources of funding

- ❑ Research Projet TANGINT/FR : « Interaction Tangible, Naturelle et Réalité Augmentée (ITANARA)». France. 2016/2017

7/ Projects approved in the least 5 years

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- ❑ Regina Ticona-Herrera, Joe Tekli, Richard Chbeir, Sébastien Laborie, Irvin Dongo, and Renato Guzman."Toward RDF Normalization". In *P. Johannesson, M. L. Lee, S. W. Liddle, A. L. Opdahl, and Pastor Lopez, editors, Conceptual Modeling, Volume 9381 of Lecture Notes in Computer Science*, pages 261-275. Springer International Publishing. Suède.
- ❑ Renato Guzman, Irvin Dongo, Regina Ticona Herrera. Structural and semantic similarity

for XML comparison. In *Proceedings of the Fifth International Conference on Management of Emergent Digital EcoSystems*. ACM, 2013. p. 177-181.

- ❏ July Diana Banda-Tapia, Regina Ticona Herrera, Dennis Barrios-Aranibar Joe Tekli, Richard Chbeir. A multi-level fuzzy logic scheme for modeling complex problems In: *Artificial Intelligence Driven Solutions to Business and Engineering Problems Book – ITHEA. ed. Galina Setlak, Mikhail Alexandrov, Krassimir Markov*. 2012. p. 54-60.
- ❏ Regina Paola Ticona Herrera, Gina Lovón Alvarado and Raquel Patiño Escarcina. Modelo Difuso para la Fundamentación en Sentencias Penales. In *Jornadas Chilenas de Computación*. 2011.

8.2 – Publications in cooperation with the project partners

- ❏ Regina Ticona-Herrera, Joe Tekli, Richard Chbeir, Sebastien Laborie, Irvin Dongo, and Renato Guzman. Toward RDF Normalization. In *Paul Johannesson, Mong Li Lee, Stephen W. Liddle, Andreas L. Opdahl, and Oscar Pastor Lopez, editors, Conceptual Modeling (ER), volume 9381 of Lecture Notes in Computer Science*, pages 261-275. Springer International Publishing, 2015.
- ❏ Regina Ticona-Herrera, Joe Tekli, Richard Chbeir, and Sebastien Laborie. Resolving logical redundancies and physical disparities in rdf descriptions (under review). Journal of Web Semantics: Science, Services and Agents on the World Wide Web (JWS), 2016.

9/ Theses oriented and post-doctoral fellows supervised

9.1 – Finished/defended in the last 5 years

9.2 – Ongoing

1/ Personal data

Name: GENSEL Jérôme

Birth date: 19/08/1965

Professional address (with telephone and e-mail):

LIG, Laboratoire d'Informatique de Grenoble

681 rue de la Passerelle, BP 72, 38402 Saint Martin d'Hères Cedex, France

Current job title and size of the research group:

- ❑ Full Professor
- ❑ STeamer Research Group (6 faculty, 10 Ph.D., 1 engineer)

2/ Highest obtained degree (with indication of place and date)

- ❑ Accreditation to Supervise Research (Habilitation à Diriger des Recherches), Université Joseph Fourier, 2006
- ❑ PhD, Université Joseph Fourier, 1995

3/ Professional activity in the last 5 years

- ❑ Full Professor
- ❑ Head of STeamer Research Group at LIG, 2010-2014
- ❑ Vice-President in charge of Research, University Pierre Mendès France (Grenoble 2), 2014-2015
- ❑ Vice-President International and External Affairs, Universié Grenoble Alpes, since 2016

4/ Other duties/ positions

- ❑ Scientific Expert for Ministry of Education and Research

5/ Awards, fellowships and external recognition

- ❑ Excellence Grant (PEDR/PES) since 2003 for research involvement
- ❑ 3 Invited Talk since 2011

6/ Ongoing funded research projects with dates, titles, sources of funding

- ❑ ECLATS
  - ❑ ANR
  - ❑ 600 K €

7/ Projects approved in the least 5 years

- ANR MOANO – 2010-2014
  - Partners : University of Pau, University of Toulouse, University of Grenoble, INRIA (15 researchers)
  - Funding 640 K €
- ESPON - Database of pervasive applications - Regional Project (2011-2014)
  - Partners : University Paris 7, Paris 1, University of Maynooth (Ireland), UAB Barcelone
  - Funding : 1,2

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- Diana Nurbakova, Léa Laporte, Sylvie Calabretto, Jérôme Gensel: ANASTASIA : recommandation de séquences d'activités spatio temporelles. CORIA-CIFED 2016: 325-334
- Ghada Ben Nejma, Philippe Roose, Marc Dalmau, Jérôme Gensel – Service Discovery for Spontaneous Communities in pervasive environment – Special Session on Decentralized Social Networks – 16th Web Information Systems Engineering (WISE 2015) – Lecture Notes in Computer Science ed. (LNCS) N° 9418 – pp.337-347 – ISBN 978-3-319-26187-4 – Miami, Florida, November 1-3 2015
- André Sales Fonteles, Sylvain Bouveret, Jérôme Gensel: Heuristics for Task Recommendation in Spatiotemporal Crowdsourcing Systems. MoMM 2015: 1-5
- Betül Aydin, Jérôme Gensel, Philippe Genoud, Sylvie Calabretto, Bruno Tellez: An architecture for surroundings discovery by linking 3D models and LOD cloud. MobiGIS 2013: 9-16

8.2 – Publications in cooperation with the project partners

- Ghada Ben Nejma, Philippe Roose, Marc Dalmau, Jérôme Gensel – Service Discovery for Spontaneous Communities in pervasive environment – Special Session on Decentralized Social Networks – 16th Web Information Systems Engineering (WISE 2015) – Lecture Notes in Computer Science ed. (LNCS) N° 9418 – pp.337-347 – ISBN 978-3-319-26187-4 – Miami, Florida, November 1-3 2015

- ❑ Ghada Ben Nejma, Philippe Roose, Dalmau Marc, Jérôme Gensel, Ghorbali Mohamed Amine - Design and development of semantic application for communities - SMAP 2014 - 9th International Workshop on Semantic and Social Media Adaptation and Personalization - November 6-7th, 2014, Corfu, Greece.
- ❑ Ghada Ben Nejma, Philippe Roose, Marc Dalmau, Jérôme Gensel, Mohamed Amine Ghorbali, – Taldea Demo: a Spontaneous Community-aware Application in Pervasive Environment - MoWNet'2014 (2014 International Conference on Selected Topics in Mobile and Wireless Networking conference), Rome, Italy, 8-9 September 2014.

9/ Theses oriented and post-doctoral fellows supervised

- ❑ 2016-2020: José Manuel Negrete Ramirez, supervision with Marc Dalmau and Philippe Lalanca (LIG/ADELE) – *Distributed Interfaces and Context-oriented broadcast services in a smart-home environment* – Mexican Government Grant (CONACYT)
- ❑ 2014-2017: Ayoub Yahiaoui, supervision with Hakim Bendjenna (University Larbi Tbessi, Tébessa, Algeria) – L'ingéniérie des exigences pour les systèmes auto-adaptatifs
- ❑ 2014-2017: Riadh Karchoud, supervision with Marc Dalmau and Arantza Illarramendi (UPV/Spain) – *Long life application for Kalimucho Smart-* usage* – International French-Spanish University Grant
- ❑ 2014-2017: Zaineb Liwen – *Specification and Evaluation of Human Behavior Scenario in e-Health Smart Environments.* French supervision with Tayeb Lemlouma and Frédéric Weis ; Tunisian supervision with Pr. M. Hassani, France-Tunisia Collaboration.

9.1 – Finished/defended in the last 5 years

- ❑ 2015: Ghada Ben Nejma, supervision with Marc Dalmau and Jérome Gensel (LIG Lab – Grenoble) – *Applications communautaires spontanées dynamiquement reconfigurables en environnement pervasif (Spontaneous social applications dynamically reconfigurable in pervasive environment)* – ANR MOANO Project
- ❑ 2015: Betül Aydin, supervision with Sylvie Calabretto (LIRIS) : *Connecting Semantic 3D Models to the LOD Cloud for Mobile Applications: Discovering the Surroundings with ARCAMA-3D*, Ph. D. from Université Grenoble Alpes

9.2 – Ongoing

- ❑ since 2015 : Camille Bernard, *Gestion et visualisation spatio-temporelles de matrices*

d'interaction territoriale à l'heure du Web des Données, Université de Grenoble, financée par la Région Rhône-Alpes (ARC 7), co-supervision with Hy Dao (Université de Genève) and Marlène Villanova-Oliver (LIG, STeamer).

- since 2015 : Diana Nurbakova, *Recherche d'Information dans le Web des Données en situation de mobilité,* INSA-Lyon, co-supervision with Sylvie Calabretto and Léa Laporte (laboratoire LIRIS).
- since 2014 : David Noël, *Metropo-Lifeline : un environnement informatique pour la description participative et l'analyse des migrations des habitants au sein d'un espace métropolitain*, Université Grenoble Alpes, co-supervision with Pierre Le Quéau (laboratoire PACTE) and Marlène Villanova-Oliver (LIG, STeamer)
- since 2013 : André Sales Fonteles, *Méthodologie et environnement informatique pour la conception et le développement d'applications mobiles dédiées à des campagnes de collecte d'informations réalisées in–situ. Application à la VGI (ou Information Géographique Participative et Citoyenne)*, Université Grenoble Alpes, co-supervision with avec Sylvain Bouveret (LIG, STeamer).
- since 2012 : Anthony Hombiat, *Méthodes et Outils d'analyse territoriale à base d'indicateurs de bien-être soutenable,* Université Grenoble Alpes, co-supervision with Marlène Villanova-Oliver (LIG, STeamer).

1/ Personal data

Name: LOPISTEGUY Philippe

Birth date: 09/06/1960

Professional address (with telephone and e-mail):

IUT de Bayonne

2, Allée du Parc Montaury

64600 Anglet

Current job title and size of the research group:

- ❏ Associate Professor
- ❏ LIUPPA/T2I Research Team

2/ Highest obtained degree (with indication of place and date)

- ❏ PhD, Université de Bordeaux, 1988

3/ Professional activity in the last 5 years

- ❏ Associate Professor
- ❏ Head of International Relations (IUT de Bayonne)

4/ Other duties/ positions

- ❏ Elected on National Council of Universities

5/ Awards, fellowships and external recognition

6/ Ongoing funded research projects with dates, titles, sources of funding

- ❏ ANR (French National Research Agency) ORPHEE project (2014-2016)

7/ Projects approved in the least 5 years

- ❏ ANR 2010-2013 « MOANO: Models & Tools for Pervasive Applications focusing on Territory Discovery » (600 K€) - Memebr
- ❏ Cross Border Franch/Spanish Project 2009-2011 « IWAAT: Interfaces Web d'Applications interactives pour Acteurs du Territoire » (190 K€) - **Leader**

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- P.Lopistéguy, D.Rieu, P.Roose – (Editor) L'adaptation dans tous ses états. ISBN 9782364930292, Editions Cépaduès, 2012
- T.N. Luong, P. Etcheverry, T. Nodenot, C. Marquesuzaà, P. Lopistéguy. WINDMash: A Visual Mashup Environment Dedicated to the Design of Web Interactive Applications. 3rd Workshop on Mash-Up Personal Learning Environments (MUPPLE-10), 2010
- T.N.Luong, P.Etcheverry, T.Nodenot, C.Marquesuzaà, P.Lopistéguy. End-User Visual Design of Web-Based Interactive Applications Making Use of Geographical Information: the WINDMash Approach – poster. 5th European Conference on Technology Enhanced Learning (EC-TEL) LNCS 6383, pp.536-541, 2010
- P.Lopistéguy, M.Latapy, P.Dagorret. Interactive Applications for Communicational Situations: Assets of Genre and Verbal Interactions. 24th ACM – SIGDOC Conference, ACM Press, pp.202-209, Myrtle Beach, SC-USA, 2006

8.2 – Publications in cooperation with the project partners

9/ Theses oriented and post-doctoral fellows supervised

9.1 – Finished/defended in the last 5 years

9.2 – Ongoing

1/ Personal data

Name: LABORIE Sébastien

Birth date: 02/06/1981

Professional address (with telephone and e-mail):

IUT de Bayonne

Château Neuf – Place Paul Bert

64100 Bayonne

Current job title and size of the research group:

- ❑ Associate Professor
- ❑ LIUPPA/T2I Research Team

2/ Highest obtained degree (with indication of place and date)

- ❑ PhD, Université de Grenoble 1, 2008

3/ Professional activity in the last 5 years

- ❑ Associate Professor
- ❑ Head of Management Dept. – IUT de Bayonne

4/ Other duties/ positions

5/ Awards, fellowships and external recognition

- ❑ He is co-chair of the 8th IEEE International Workshop on Semantic and Social Media Adaptation and Personalization (www.smap2013.org).
- ❑ Member of several Program Committee: IEEE Multimedia, MEDES 2013, Ubimob 2013, CORIA 2013, INFORSID 2011/2013, SMAP 2008/2009/2010.

6/ Ongoing funded research projects with dates, titles, sources of funding

- ❑ ANR (French National Research Agency) ORPHEE project (2014-2016)

7/ Projects approved in the least 5 years

- ❑ ANR 2010-2013 « MOANO: Models & Tools for Pervasive Applications focusing on Territory Discovery » (600 K€) - Member

- Cross Border French/Spanish Project 2009-2011 « IWAAT: Interfaces Web d'Applications interactives pour Acteurs du Territoire » (190 K€) - **Leader**

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- Laborie, S., Mylonas, P., Roose, P. & Wallace, M. (2015). International Journal of Virtual Communities and Social Networking (IJVCSN), Special Issue on Social Media and Networks for Multimedia Content Management (Part 2).
- Ticona-Herrera, R., Tekli, J., Chbeir, R., Laborie, S., Dongo, I. & Guzman, R (2015). *Toward RDF Normalization*. In LNCS, S. (editor), Proc. of the 34th International Conference on Conceptual Modeling (ER 2015), pages 261-275.
- Luong, T. N., Marquesuzaà, C., Etcheverry, P., Nodenot, T. & Laborie, S (2015). *Facilitating the Design/Evaluation Process of Web-based Geographic Applications: a Case Study with WINDMash*. In Proc. of the 2nd International Conference on Future Data and Security Engineering (FDSE 2015), pages 259-271.
- Song, J., Ravat, F., Teste, O. & Laborie, S (2015). *Combining Business Intelligence with Semantic Web: Overview and Challenges*. In Actes du 33ème Congrès sur l'INFormatique des ORganisations et Systèmes d'Information et de Décision (INFORSID 2015). 8.2 – Publications in cooperation with the project partners
- Alti, A., Laborie, S. & Roose, P (2014). Enrich the Expressiveness of Multimedia Document Adaptation Processes. In Spyrou, E., Iakovidis, D. & Mylonas, P. (editors), Semantic Multimedia Analysis and Processing. CRC Press.

9/ Theses oriented and post-doctoral fellows supervised

9.1 – Finished/defended in the last 5 years

9.2 – Ongoing

- Nathalie Charbel (2015-2018) LIUPPA & Nobatek - *Analyse, classification et enrichissement sémantique de corpus de données hétérogènes : application au domaine du bâtiment*. Co-supervision with Christian Sallaberry (LIUPPA) and Gilbert Tekli (Nobatek).

- Regina Paola Ticona Herrera (2013-2017) (LIUPPA) - *Normalisation de descriptions RDF* - Co-supervision with Richard Chbeir (LIUPPA) and Joe Tekli (LAU School of Engineering, Liban).

1/ Personal data

Name: CARDINALE Yudith

Birth date: 08/08/1968

Professional address (with telephone and e-mail):

Universidad Simon Bolivar

Valle de Sartenejas, Baruta

Caracas 1080-A

Current job title and size of the research group:

- ❑ Titular Professor
- ❑ GRyDs (Grupo de invesitgaciòn en Redes y Sistemas distribuidos): Network and Distributed Systems Research Team (5 professors, 8 master and PhD students)

2/ Highest obtained degree (with indication of place and date)

- ❑ PhD, Universidad Simon Bolivar, 2004

3/ Professional activity in the last 5 years

- ❑ Titular Professor at USB
- ❑ Head of Research Group GRyDs at USB
- ❑ Director of Computer Science Academic Lab
- ❑ Coordinator of Specializations in Telecommunications

4/ Other duties/ positions

- ❑ Vice-President of Venezuelan Computing Association (SVC -- Sociedad Venezolana de Comptacion)
- ❑ President of CLEI Venezuela Foundation

5/ Awards, fellowships and external recognition

- ❑ Best Teacher Award of the year 2013-2014. Universidad Simon Bolivar. January 19, 2015.
- ❑ Best Athlete Teacher Award of the year 2013. Universidad Simon Bol\ivar. April, 2014.
- ❑ PEII Level C (highest level). Venezuelan Research and Innovation Promotion Programme. 2011 - present.

6/ Ongoing funded research projects with dates, titles, sources of funding

- ❑ HIT2GAP: Highly Innovative Building Control Tools Tackling the Energy Performance Gap. Sponsored by European Union (France). 2016-2018.
- ❑ Multimedia Semantic Sensor Network (MSSN) Framework, RDF Anonimization, and Event Detection/Handling in Smart Energy Environments. 2017-2018. Sponsored by LIUPPA (France)

7/ Projects approved in the least 5 years

- ❑ Analysis of Telecommunications Infrastructure in Public Health Centers and Proposal of Technical Adjustments for e-health applications: Case Study Parroquias La Vega, Antìmano and El Paraìso. Sponsored by FONACIT (Venezuela) 2014-2016.
- ❑ Recovery and Strengthening of High Performance Computing Lab to offer Computing and Storage Services at Grand Scale for Applications of Environment, Habitat, Housing, Energy, and Health Areas. Sponsored by FONACIT (Venezuela) 2014-2016.

- L'Enregistrement, La D\'ecouverte, La Correspondance, La Composition, L'Evaluation et L'Exécution des Services Web. Sponsored by FONACIT (Venezuela) and CNRS (France). 2009 -2013.

8/ Publications

8.1 – Highlight the most important publications related to the project theme

- Yudith Cardinale; Sonia Guehis; and MArta Rukoz.”Big Data Analytic Approaches Classifi- cation”. 12th International Conference on Software Technologies, pp. 1– 12. 2017.
- Alejandro Amaro; Federico Flaviani; Alejandro Figueroa; Ruby De Valencia; Yudith Cardinale. ”Ontologìa para las Manifestaciones Rupestres en Venezuela: Hacia el Desarrollo de una Plataforma para la Preservaciònn Digital”. Revista Venezolana de Computaciòn - ReVeCom - Vol. 3, No. 2, pp. 57-67. Selected among 8 best papers from IV Conferencia Nacional de Computaciòn, Informàtica y Sistemas (CONCISA 2016), October 26-28, 2016.
- Rafael Angarita, Marta Rukoz, Yudith Cardinale. ”Modelling dynamic recovery strategy for composite web services execution”. World Wide Web Journal Special Issue on Large-Scale Web Virtualized Environment. Springer US. Vol. 19, No. 1, pp. 89 - 109. January, 2016.
- Corentin Donzelli; Solomon Asres Kidanu; Richard Chbeir; Yudith Cardinale. ”Onto2MAS: An Ontology-Based Framework for Automatic Multi-Agent System Generation”. The 12th International Conference on SIGNAL IMAGE TECHNOLOGY & INTERNET BASED SYSTEMS, pp. 1–8. 2016.
- Rafael Angarita; Marta Rukoz; Maude Manouvrier; Yudith Cardinale. ”A Knowledge-based Approach for Self-healing Service-oriented Applications”. International Conference on Management Digital EcoSystems (MEDES 2016), pp. 1–8, Hendaye, France, November 1-4, 2016.
- Alejandro Amaro; Federico Flaviani; Alejandro Figueroa; Ruby De Valencia; Yudith Cardinale. ”Ontologìa para las Manifestaciones Rupestres en Venezuela: Hacia el Desarrollo de una Plataforma para la Preservaciòn Digital”. IV Conferencia Nacional de Computaciòn, Informàtica y Sistemas (CONCISA 2016). pp. 101–111. ISBN: 978-980-7683-02-9. Caracas, Venezuela, October 26-28, 2016.
- Solomon Asres Kidanu; Yudith Cardinale; Richard Chbeir; Victor De Ponte; Alejandro Figueroa; Ronier Rodr´ıguez; Carlos Ibanez. ”MMDES: Multimedia Digital Ecosystem. New Platform for Collaboration and Sharing”. 19th IEEE International Conference on Computational Science and Engineering (CSE 2016). pp 1–8. Paris, France, August 24-26, 2016.
- Yudith Cardinale; Joyce El Haddad; Maude Manouvrier; Marta Rukoz. ”Measuring Fuzzy Atomicity for Composite Service Execution”. Invited paper. The 2nd International Conference on Open and Big Data (OBD 2016). pp 1–10. Vienna, Austria, August 22-24, 2016.
- Yudith Cardinale; Alejandro Figueroa; Alvaro Parada; Ronier Rodrìguez; Solomon Asres; Richard Chbeir. ”EDiM: Ecosistema Digital Multimedia Plataforma Novedosa de Colaboraciòn y Compartimiento”. Tekhné. Revista de la Facultad de Ingenierìa de la Universidad Catòlica Andrés Bello. Venezuela. Vol. 1, Number 18. pp. 14 - 25. February, 2016. Presented at III Conferencia Nacional de Computaciòn, Informàtica y Sistemas (CONCISA 2015) and selected to be published at the Tekhné journal.
- David Zaragoza; Yudith Cardinale; Marta Rukoz. ”SimSearch: Similarity Search Framework Based on Indexing Techniques in Metric Spaces”. The 7th International Conference on Management of

computational and collective IntElligence in Digital EcoSystems (MEDES'15). pp 90-97. October 25-29, 2015

- ❑ Rafael Angarita; Cardinale, Yudith; Marta Rukoz. "Reliable Composite Web Services Execution: Towards a Dynamic Recovery Decision". Electronic Notes in Theoretical Computer Science. Vol. 302, pp. 5 - 28. 2014.
- ❑ Cardinale, Yudith; Joyce El Haddad; Maude Manouvrier; Marta Rukoz. "Web Service Composition based on Petri Nets: review and contributions". pp. 1 - 39. LNCS by Springer volume of Fifth International Workshop of Resource Discovery 2012. 2013.
- ❑ Cardinale, Yudith; Marta Rukoz; Angarita Rafael. "Modelling Snapshot of Composite WS Execution by Colored Petri Nets". pp. 1 - 22. LNCS by Springer volume of Fifth International Workshop of Resource Discovery 2012. Extended version. Vol. 8194, pp. 23 - 44. 2013.
- ❑ Blanco, Eduardo; Cardinale, Yudith; Vidal, M. "A Non-Chronological Backtracking Unfolding Algorithm for Transactional Web Service Composition". Procedia Computer Science. Vol. 10, pp. 888 - 893. 2012.
- ❑ Blanco, Eduardo; Cardinale, Yudith; Vidal, M. "Experiences of Sampling-Based Approaches for Estimating QoS Parameters in the Web Service Composition Problem". INTERNATIONAL JOURNAL OF WEB AND GRID SERVICES. Inderscience. Vol. 8 (1), pp. 1 - 30, 2012.

9/ Theses oriented and post-doctoral fellows supervised

9.1 – Finished/defended in the last 5 years

- ❑ Solomon Asres. Digital Ecosystem: For Better Management of Multimedia Contents, in co-direction with Dr. Richard Chbeir. Université de Pau, France (2016).
- ❑ Rafael Angarita. An Approach for Self-healing Transactional Composite Services, in co-direction with Dr. M. Rukoz and Dr. Maude Manouvrier from Université Paris Dauphine. Honorific Mention: Best PhD Thesis in Computer Science (2015).
- ❑ Jesùs Campos. E-Health in Grid Computing, in co-direction with Dr. Emilio Hernàndez. Simon Bolıvar University, Venezuela (2015).
- ❑ Aquiles Barreto. Dynamic Load Balancing Model for Computational Clusters based on Weak Migration and Krasovskii Method. Simon Bolivar University, Venezuela. Honorific Mention (2014).
- ❑ Eduardo Blanco. Optimization in Web Services Composition in Grid Environments. Simon Bolıvar University, Venezuela. Honorific Mention (2013).

9.2 – Ongoing

- ❑ Alejandro Amaro. Open Linked Cultural Data. Simon Bolıvar University, Venezuela
- ❑ Chinnapong Angsuchotmetee. Event Processing in Multimedia Sensor Networks, in co- direction with Dr. Richard Chbeir and Dr. Shohei Yokoyama. Université de Pau, France
- ❑ Irvin Dongo. Anonimization in RDF documents, in co-direction with Dr. Richard Chbeir, Dr. Firas Al Khalil and Dr. Sebastien Laborie. Université de Pau, France.
- ❑ Elio Mansour. User-centric Social Event Detection, in co-direction with Dr. Richard Chbeir and Dr. Philippe Arnould. Université de Pau, France.
- ❑ Carlos Escobar. Fault Tolerance in Web Services Compositions. Simon Bolıvar Univer- sity, Venezuela