



**Europass  
Curriculum Vitae**

**Personal information**

First name(s) / Surname(s)

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Nationality

Date of birth

**eVIDA Research Group**

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Spanish

2001

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	2010-2012	2013-2015	2016-2018
<i>Artículos en revistas ISI</i>	3	35	38
<i>De ellos en 1er cuartil</i>	1	9	7
<i>Otras publicaciones</i>	22	15	3
<i>Tesis doctorales dirigidas y defendidas</i>	1	3	8
<i>De ellas tesis internacionales</i>	1	2	2
<i>Becarios y contratados predoctorales y postdoctorales incorporados</i>	9	3	3
<i>Financiación externa (€)</i>	1.416.283 €	1.232.062 €	912.165 €
<i>Registros Propiedad Intelectual</i>	8	18	4

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## Academic activities

### Thesis presented in the eVIDA group:

#### **Defended thesis:**

11. Alain Sánchez González. "Algoritmos para el seguimiento y adecuación de la calidad de la colonoscopia en el cribado de cáncer colorrectal". 2017.
10. Iranzu Mugueta "Solución tecnológica basada en juegos como terapia para reducir la fragilidad en personas mayores". Cum Laude. July 2017.
9. Rizwan Ishaq. "Esophageal Speech improvement by signal processing methods on excitation (source) signal". Cum Laude. 2016.
8. Javier Vicente Sáez. "Arquitectura Novel de procesador DSP". 2016.
7. Nuria Aresti Bartolomé. "Tecnologías de realidad mixta para el diseño e implementación de aplicaciones software para el diagnóstico y tratamiento de problemas de neurodesarrollo". Cum Laude. 2016.
6. Fernando Jorge Hernández. "Algoritmo óptimo para la caracterización de patologías cerebrales sobre imágenes de resonancia magnética funcional". Cum Laude 2016.
5. Maite Frutos Pascual. "Algoritmo multi-variable basado en biofeedback para la adaptación en tiempo real de serious games for health orientados a personas con TDAH". 2016.
4. Ibon Oleagordia Ruiz. "Mejora de la calidad y la parametrización de la voz esofágica". Cum Laude. 2015.
3. Gonzalo Eguiluz Perez. "Sistema de tele-consulta y ayuda al diagnóstico mediante procesamiento de señal basado en web". Cum Laude. 2015.
2. Jose Luis García Arroyo. "Algoritmo de detección y caracterización de patrones dermatoscópicos presentes en el melanoma". 2014.
1. Amaia Méndez Zorrilla. "Algoritmo de parametrización de imágenes estroboscópicas de cuerdas vocales". Cum Laude. 2012.

#### **Thesis in progress:**

5. Yolanda García Chimeno: "Algoritmo de Biofeedback Multisensor para la optimización, monitorización y adaptación para técnicas terapéuticas de problemas de salud y calidad de vida".
4. Lore Martínez Axpe. Solución Tecnológica para la inserción de niñas en estudios relacionados con las STEAM.
3. Ornela Bardhi: "Cancer: Activating Technology for Connected Health". Registered in 2017.
2. Laura Fernandez Cordero. "Efectos de la incapacitación judicial en el ejercicio de los derechos fundamentales personalísimos en personas con discapacidad intelectual, en la CAPV. Una propuesta de cambio atendiendo al modelo de prestación de apoyos, recogido en la convención sobre los derechos de las personas con discapacidad, de la ONU".
1. Sofia Zahia. "Solución Tecnológica para la evaluación y monitorización de úlceras por presión".

## Research projects

105. PROJECT TITLE: virtuAAL: Virtual and Augmented reality for combating cognitive  
FUNDING ENTITY: AAL-Call-2018: AAL PACKAGES/ INTEGRATED SOLUTIONS.  
STARTING DATE: 2018 ENDING DATE: 2021  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain
104. PROJECT TITLE: frAAgiLe: A platform for detecting and preventing frailty and falls  
FUNDING ENTITY: AAL-Call-2018: AAL PACKAGES/ INTEGRATED SOLUTIONS.  
STARTING DATE: 2018 ENDING DATE: 2021  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain
103. PROJECT TITLE: Deploying AAL Packages at Scale  
FUNDING ENTITY: AAL-Call-2017: AAL PACKAGES/ INTEGRATED SOLUTIONS.  
STARTING DATE: 2018 ENDING DATE: 2021  
CHIEF RESEARCHER: Amaia Méndez Zorrilla
102. PROJECT TITLE: Microfluidica y data analytics para la creación de un sistema de apoyo al tratamiento personalizado en oncología  
FUNDING ENTITY: Basque Government. Elkartek Program.  
STARTING DATE: 2018 ENDING DATE: 2019  
CHIEF RESEARCHER: Ibon Oleagordia Ruiz
101. PROJECT TITLE: SERENA: Plataforma cloud para la creación y el consumo personalizado de entornos inmersivos web interactivos en el ámbito del envejecimiento  
FUNDING ENTITY: Basque Government. Hazitek Program.  
STARTING DATE: 2018 ENDING DATE: 2019  
CHIEF RESEARCHER: Ibon Oleagordia Ruiz
100. PROJECT TITLE: NEUREHAB:Tele-rehabilitación enfocada al control y seguimiento de enfermedades Neurológicas y Neumológicas  
FUNDING ENTITY: Basque Government. Hazitek Program.  
STARTING DATE: 2015 ENDING DATE: 2016  
CHIEF RESEARCHER: Amaia Méndez Zorrilla
99. PROJECT TITLE: ViveWeb:Elaboración y diseño de la arquitectura técnica y física de la plataforma web  
FUNDING ENTITY: Basque Government. Hazitek Program.  
STARTING DATE: 2015 ENDING DATE: 2017  
CHIEF RESEARCHER: Ibon Oleagordia Ruiz
98. PROJECT TITLE: Piloto de juego básico basado en Kinect para trabajar la fragilidad en personas mayores  
FUNDING ENTITY: Emankor  
STARTING DATE: 2016 ENDING DATE: 2016  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain
97. PROJECT TITLE: ELAGUN: Plataforma online para el tratamiento e intervención en pacientes con esquizofrenia  
FUNDING ENTITY: Basque Government. Hazitek Program  
STARTING DATE: 2016 ENDING DATE: 2017  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain
96. PROJECT TITLE: BIOGAME: Plataforma tecnológica de ocio, training y rehabilitación neuromuscular interactiva  
FUNDING ENTITY: Basque Government. Hazitek Program  
STARTING DATE: 2016 ENDING DATE: 2017  
CHIEF RESEARCHER: Amaia Méndez Zorrilla
95. PROJECT TITLE: Estudio para la detección de Evidencias Científicas dentro del Programa de Reminiscencia del IFAS  
FUNDING ENTITY: Diputación Foral de Bizkaia  
STARTING DATE: 2016 ENDING DATE: 2017  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain
94. PROJECT TITLE: ENVEJECIMIENTO ACTIVO\_2016  
FUNDING ENTITY: Diputación Foral de Bizkaia  
STARTING DATE: 2016 ENDING DATE: 2016  
CHIEF RESEARCHER: Amaia Méndez Zorrilla
93. PROJECT TITLE: EBIHOTZA: ALGORITMOS DE PROCESADO DIGITAL MULTI-SENSOR ASOCIADOS A ENFERMEDADES CARDIOVASCULARES PARA LA MONITORIZACIÓN Y ANÁLISIS CON TÉCNICAS DE MACHINE LEARNING  
FUNDING ENTITY: Basque Government. Elkartek Program  
STARTING DATE: 2016 ENDING DATE: 2017  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain

92. PROJECT TITLE: SUPRA: Sistema Avanzado para el control de úlceras por presión mediante evaluación y reconocimiento de imagen  
FUNDING ENTITY: Basque Government. Hazitek Program  
STARTING DATE: 2016 ENDING DATE: 2017  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain

91. PROJECT TITLE: SMARTXA: Solución tecnológica para monitorización de la marcha y movilidad como parámetro de medida del estado de salud de personas con esclerosis múltiple y enfermedades neurodegenerativas  
FUNDING ENTITY: Basque Government. Hazitek Program  
STARTING DATE: 2016 ENDING DATE: 2018  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain

90. PROJECT TITLE: Bizkaia Talent  
FUNDING ENTITY: BIZKAIA-XEDE Programa de Ayudas para Investigadores  
STARTING DATE: 2014 ENDING DATE: 2017  
CHIEF RESEARCHER: M<sup>a</sup> Begoña García-Zapirain

89. PROJECT TITLE: CATCH - Cancer: Activating Technology for Connected Health  
FUNDING ENTITY: European Commission – MSCA-ITN-2016: Innovative Training Networks  
STARTING DATE: 2016 ENDING DATE: 2020  
CHIEF RESEARCHER: Brian Caulfield

88. PROJECT TITLE: AMIS - Access Multilingual Information OpinionS  
FUNDING ENTITY: European Commission – Chist-ERA II  
STARTING DATE: 01/10/2015 ENDING DATE: 30/09/2018  
CHIEF RESEARCHER: Smaili Kamel

87. PROJECT TITLE: IMPRUVER - Sistema de Imagen para la Evaluación, Diagnóstico, Predicción y Monitorización de las úlceras por presión.  
FUNDING ENTITY: Spanish Ministry of Economy y competitiveness.  
STARTING DATE: 01/01/2015 ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Begoña García-Zapirain Soto

86. PROJECT TITLE: REST: Red Social de apoyo al respiro dirigido, training y couching de cuidadores de personas mayores y/o dependientes  
FUNDING ENTITY: Regional Government of Biscay. Department of Economic Promotion  
STARTING DATE: 01/07/2015 ENDING DATE: 31/12/2015  
CHIEF RESEARCHER: María Begoña García Zapirain

85. PROJECT TITLE: Soluciones tecnológicas para facilitar la práctica de mindfulness: caminando hacia mHealth. Ref.: TEC2013-50049-EXP  
FUNDING ENTITY: Ministerio de Economía y Competitividad.  
STARTING DATE: 01/09/2014 ENDING DATE: 31/08/2016  
CHIEF RESEARCHER: Inmaculada Plaza García

84. PROJECT TITLE: Solución tecnológica para el seguimiento y adecuación de la calidad de la colonoscopia en el cribado de cáncer colorrectal  
FUNDING ENTITY: Basque Government. Proyectos de Investigación en Salud  
STARTING DATE: 2014 ENDING DATE: 2016  
CHIEF RESEARCHER: Begoña García-Zapirain Soto

83. PROJECT TITLE: SUNFRAIL: Reference Sites Network for Prevention and Care of Frailty and Chronic Conditions in community dwelling persons of EU Countries  
FUNDING ENTITY: European Commission. HP-PJ-2014.  
STARTING DATE: 15/02/2015 ENDING DATE: 15/08/2017  
CHIEF RESEARCHER: Antonio Addis

82. PROJECT TITLE: Caracterización articulatoria tridimensional del español y su aplicación a la enseñanza de su pronunciación  
FUNDING ENTITY: MINECO- Proyectos I+D Excelencia 2013  
STARTING DATE: 01/01/2014 ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Rosa Miren Pagola

81. PROJECT TITLE: JOKOGLAS: Herramienta tecnológica para fomentar la estimulación física y cognitiva mediante actividades y juegos con dispositivos adaptados  
FUNDING ENTITY: Basque Government. Gaitek Program.  
STARTING DATE: 01/07/2014 ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Oskar Rueda

80. PROJECT TITLE: LINFOCAD: Sistema automatizado para la detección y monitorización 3D de inflamaciones de ganglios linfáticos de cara a la mejora en los diagnósticos y tratamientos oncológicos  
FUNDING ENTITY: Basque Government. Gaitek Program.

STARTING DATE: 01/07/2014      ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Mercedes Gozalbo Mestres

79. PROJECT TITLE: MyZain: Plataforma tecnológica de apoyo a los cuidadores informales para mejorar la intervención en personas dependientes  
FUNDING ENTITY: Basque Government. Gaietek Program.  
STARTING DATE: 01/07/2014      ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Naiara Esteban Foruria

78. PROJECT TITLE: Shark: Middleware adaptativo para el desarrollo de sistemas de apoyo a la rehabilitación de personas con discapacidad física a través del ocio y bio-feedback  
FUNDING ENTITY: Basque Government. Gaietek Program.  
STARTING DATE: 01/07/2013      ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Begoña Garcia Zapirain

77. PROJECT TITLE: eBIP: Plataforma de información y seguimiento para mujeres embarazadas mediante la comunicación directa con sus especialistas médicos.  
FUNDING ENTITY: Basque Government. Gaietek Program  
STARTING DATE: 01/07/2013      ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Begoña Garcia Zapirain

76. PROJECT TITLE: CASE 3D: Caracterización articulatória de la producción de los sonidos del euskara a partir de la modelización 3D del tracto vocal  
FUNDING ENTITY: Basque Government. Basic research.  
STARTING DATE: 01/01/2013      ENDING DATE: 31/12/2015  
CHIEF RESEARCHER: Rosa Miren Pagola Petrirena

75. PROJECT TITLE: ABC- Play : Customización automática y evaluación mediante biofeedback de Serious Games for Health orientados a personas con TDAH.  
FUNDING ENTITY: Basque Government. Saiotek Program.  
STARTING DATE: 01/08/2013      ENDING DATE: 31/12/2014  
CHIEF RESEARCHER: Amaia Mendez Zorrilla

74. PROJECT TITLE: Desarrollo de un Dispositivo de Análisis Telemático para Biomarcadores de Salud (Teletest)  
FUNDING ENTITY: Department of Industry, Innovation Trade and Tourism of the Basque Government. GAITEK Program  
STARTING DATE: 01/01/2013      ENDING DATE: 31/12/2014  
CHIEF RESEARCHER: María Begoña García Zapirain

73. PROJECT TITLE: Solución Tecnológica basada en Robot Lego combinado con Dispositivos Táctiles para el Desarrollo de Habilidades Sociales y Hábitos Saludables  
FUNDING ENTITY: Aristos Campus Mundus (ACM 2015)  
STARTING DATE: 15/03/2015      ENDING DATE: 15/03/2016  
CHIEF RESEARCHER: María Begoña García Zapirain

72. PROJECT TITLE: EVEREAD  
FUNDING PROJECT TITLE: Sistema Integral de capacitación y apoyo a las personas con DI para mejorar la gestión de la toma y seguimiento de sus dietas para el cuidado e impulso de estilos de vida saludables  
FUNDING ENTITY: Department of Industry, Innovation Trade and Tourism of the Basque Government. GAITEK Program  
STARTING DATE: 01/01/2013      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: María Begoña García Zapirain  
ENTITY: Department of Industry, Innovation Trade and Tourism of the Basque Government. GAITEK Program  
STARTING DATE: 01/01/2013      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: Mari Luz Guenaga

70. PROJECT TITLE: Diseño y desarrollo de algoritmos avanzados de detección heurística y no heurística de tumores, caracterización de los mismos y modelado matemático de su evolución en 3D, de cara a la mejora en su diagnóstico y tratamiento (Detectum3D)  
FUNDING ENTITY: Department of Industry, Innovation Trade and Tourism of the Basque Government. GAITEK Program  
STARTING DATE: 01/01/2013      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: María Begoña García Zapirain

69. PROJECT TITLE: SMARTXA-BASIC: Solución tecnológica para monitorización de la marcha como parámetro de medida del estado de salud de las personas con problemas de movilidad. Ref: CTP2012/P05  
FUNDING ENTITY: Communauté de Travail des Pyrénées  
STARTING DATE:01/01/2013      ENDING DATE: 31/12/2014  
CHIEF RESEARCHER: María Begoña García Zapirain

68. PROJECT TITLE: Mejora de la calidad de vida y la salud de personas con diversidad funcional utilizando entornos virtuales y juegos de ordenador  
FUNDING ENTITY: Spanish Ministry of Foreign Affairs and Cooperation  
STARTING DATE:01/01/2012      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: María Begoña García Zapirain

67. PROJECT TITLE: Disfunción Orbito Frontal en Pacientes con Migraña Crónica y Abuso de Analgésicos. Estudio con Resonancia Magnética Funcional (fMRI). MIGREIN  
FUNDING ENTITY: Instituto de Salud Carlos III (ISCIII). FIS Program  
STARTING DATE:01/01/2012      ENDING DATE: 31/12/2014  
CHIEF RESEARCHER: María Ángeles Beldarrain

66. PROJECT TITLE: jolasTEA: Solución tecnológica de ayuda al tratamiento de los trastornos del espectro autista (TEA) siguiendo los criterios del DSM - V  
FUNDING ENTITY: Regional Government of Biscay. Department of Economic Promotion  
STARTING DATE:2012      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: María Ángeles Beldarrain

65. PROJECT TITLE: Ergolab  
FUNDING ENTITY: Contract with Tecnalía Company  
STARTING DATE:01/01/2012      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: Ibon Ruiz Oleagordia

64. PROJECT TITLE: eMedical Coach - sistema integral de capacitación y apoyo a las personas con di para mejorar la gestión de la toma y seguimiento de sus dietas para el cuidado e impulso de estilos de vida saludables  
FUNDING ENTITY: Basque Government. Gaitek Program  
STARTING DATE: 01/07/2012      ENDING DATE: 31/12/2016  
CHIEF RESEARCHER: Amaia Méndez Zorrilla

63. PROJECT TITLE: H-SEAT: Healthy Sleep And Exercise Analysis Tool  
FUNDING ENTITY: European Union. Lead-ERA.  
STARTING DATE: 01/01/2012      ENDING DATE: 01/01/2016  
CHIEF RESEARCHER: Begoña García Zapirain

62. PROJECT TITLE: Psicoestimula: "Gamificación y Psicoestimulación en las personas que envejecen"  
FUNDING ENTITY: Spanish Ministry of Industry, Tourism and Commerce. Avanza Program.  
STARTING DATE: 01/07/2012      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: Amaia Méndez Zorrilla

61. PROJECT TITLE: Ejolas: Haurren Ohitura Osasungarrietarako Jolas Teknologikoa  
FUNDING ENTITY: Regional Government of Biscay  
STARTING DATE: 01/01/2012      ENDING DATE: 31/12/2015  
CHIEF RESEARCHER: Begoña García Zapirain

60. PROJECT TITLE: EMUGI: Herramienta Tecnológica Para El Apoyo A La Movilidad De Los Enfermos De Esclerosis Múltiple  
FUNDING ENTITY: Regional Government of Biscay  
STARTING DATE: 01/01/2012      ENDING DATE: 31/12/2015  
CHIEF RESEARCHER: Begoña García Zapirain

59. PROJECT TITLE: Envejecimiento Activo- hábitos saludables con la Kinect para personas mayores  
FUNDING ENTITY: Regional Government of Biscay  
STARTING DATE: 01/01/2012      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: Begoña García Zapirain

58. PROJECT TITLE: Euskal Ahotsak Ahoskatzen  
FUNDING ENTITY: Regional Government of Biscay  
STARTING DATE: 01/01/2011      ENDING DATE: 01/04/2012  
CHIEF RESEARCHER: Begoña García Zapirain

57. PROJECT TITLE: Promoción del ocio y deporte saludable en personas con diversidad funcional a través de apoyos tecnológicos  
FUNDING ENTITY: Regional Government of Biscay  
STARTING DATE: 01/01/2011      ENDING DATE: 01/04/2012  
CHIEF RESEARCHER: Begoña García Zapirain

56. PROJECT TITLE: Plataforma integral de apoyo a las personas con discapacidad intelectual y del desarrollo para la toma de decisiones de la vida cotidiana y promoción de la integración social. Proinso  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. INNOTEK Program.  
STARTING DATE: 01/07/2011      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: María Begoña García Zapirain

55. PROJECT TITLE: Análisis matemático de la periodicidad de la actividad epileptiforme periódica (PLEDS) que aparece en el EEG de algunos pacientes con sospecha clínica de estatus epiléptico no convulsivo. (ICTALPLED)  
FUNDING ENTITY: Basque Government, Department of Social Welfare.  
STARTING DATE: 01/10/2011      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: Ibon Ruiz Oleagordia

54. PROJECT TITLE: Estudio de la función cerebral en reposo mediante resonancia magnética en pacientes con migraña crónica. MRESTIG  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. SAIOTEK Program  
STARTING DATE: 01/10/2011      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: Ibone Saralegui

53. PROJECT TITLE: Algoritmos de análisis y procesado de señales EEG para el estudio y caracterización del trastorno por déficit de atención e hiperactividad a través de las neuronas espejo  
FUNDING ENTITY: Basque Government, Department of Education, Universities and Research. Ref. PI2011-63  
STARTING DATE: 09/2011      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: María Begoña García Zapirain

52. PROJECT TITLE: Solución inteligente integral para AAL (Intelligent integrated solution for Ambient Assisted Living). ePERION  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. INNOTEK  
STARTING DATE: 01/01/2011      ENDING DATE: 31/12/2013  
CHIEF RESEARCHER: María Begoña García Zapirain

51. PROJECT TITLE: Solución Tecnológica para la Telerehabilitación para pacientes con trastornos medulares. eREMEDU  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE: 01/10/2010      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: María Begoña García Zapirain

50. PROJECT TITLE: Herramienta tecnológica basada en el "Tangram" para la psicoestimulación de las personas mayores. eTANGRAM  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE: 01/10/2010      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: María Begoña García Zapirain

49. PROJECT TITLE: Estudio de la función frontal en pacientes con diferentes tipos de migraña. MIGREIN  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. SAIOTEK Program.  
STARTING DATE: 01/10/2010      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: Ibon Ruiz Oleagordia

48. PROJECT TITLE: Telerehabilitación para Pacientes con Movilidad Limitada.  
TELEREHAB  
FUNDING ENTITY: Regional Government of Biscay. Department of Economic Promotion  
STARTING DATE:01/07/2010      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: María Begoña García Zapirain

47. PROJECT TITLE: eTIDI (Solución Tecnológica como herramienta de Terapia e  
Inclusión para la Dislexia Infantil)  
FUNDING ENTITY: Regional Government of Biscay. Department of Economic Promotion  
STARTING DATE:01/07/2010      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: María Begoña García Zapirain

46. PROJECT TITLE: Descripción articulatória experimental de la lengua; parámetros  
articulatorios del castellano y el euskara mediante cine-MRI (DAELPACE)  
FUNDING ENTITY: Spanish Ministry of Science and Innovation.  
STARTING DATE:01/01/2010      ENDING DATE: 31/12/2012  
CHIEF RESEARCHER: Rosa Miren Pagola Petirena

54. PROJECT TITLE: Letralan Videoconsulta  
FUNDING ENTITY: Letralan Company  
STARTING DATE: 01/02/2010      ENDING DATE: 01/05/2010  
CHIEF RESEARCHER: Begoña García Zapirain

44. PROJECT TITLE: Easywalk  
FUNDING ENTITY: Contract with Adecco Foundation  
STARTING DATE:01/01/2010      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: Amaia Méndez Zorrilla

43. PROJECT TITLE: OESOVOX - INRIA 09/11  
FUNDING ENTITY: INRIA - Institut National de Recherche en  
Informatique et Automatique  
STARTING DATE: 01/01/2009      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: Joseph Di Martino

42. PROJECT TITLE: DISLEX-FIS Analisis de la activacion neuronal mediante  
Resonancia Magnetica Funcional en pacientes disléxicos.  
FUNDING ENTITY: Spanish Ministry of Science and Innovation  
STARTING DATE: 01/01/2009      ENDING DATE: 01/01/2011  
CHIEF RESEARCHER: Ibone Saralegi

41. PROJECT TITLE: NEURRILAN  
FUNDING ENTITY: OSALAN – Basque Government  
STARTING DATE: 01/01/2009      ENDING DATE: 31/12/2010  
CHIEF RESEARCHER: Begoña García Zapirain

40. PROJECT TITLE: MELANOTIC. Utilización de las TICs para el Desarrollo de  
Diagnósticos de Lesiones Dermatológicas con Riesgo de Melanoma  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque  
Government.  
STARTING DATE:01/07/2009      ENDING DATE: 01/07/2010  
CHIEF RESEARCHER: María Begoña García Zapirain

39. PROJECT TITLE: LANziurra.- Apoyo al trabajo independiente mediante el uso de las  
TICs para la prevención en riesgos laborales y modificaciones de conductas en personas  
con discapacidad  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque  
Government.  
STARTING DATE:01/07/2009      ENDING DATE: 30/06/2011  
CHIEF RESEARCHER: María Begoña García Zapirain

38. PROJECT TITLE: e- LIFE. Las TICs como Mejora de la Calidad de Vida  
Independiente de las Personas con Discapacidad Intelectual en el Hogar  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque  
Government.



STARTING DATE:01/07/2009      ENDING DATE: 30/06/2010  
CHIEF RESEARCHER: María Begoña García Zapirain

37. PROJECT TITLE: VMS. Virtual Medicare System. Sistema Médico Virtual.  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/07/2009      ENDING DATE: 01/03/2010  
CHIEF RESEARCHER: María Begoña García Zapirain

36. PROJECT TITLE: EvoCAN.- Modelo Matemático de Crecimiento Tumoral y su Parametrización mediante Imágenes Médicas para Optimización del Tratamiento  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE:01/07/2009      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: María Begoña García Zapirain

35. PROJECT TITLE: Desarrollo del Diagnóstico, Rehabilitación y Aprendizaje de la Voz Esofágica a través de las TICs (DRAVOES)  
FUNDING ENTITY: Spanish Ministry of Industry, Trade and Tourism. AVANZA Program.  
STARTING DATE:01/04/2009      ENDING DATE: 31/12/2010  
CHIEF RESEARCHER: María Begoña García Zapirain

34. PROJECT TITLE: Desarrollo del Diagnóstico, Rehabilitación y Aprendizaje de la Voz Esofágica a través del Uso de las TICs (ESOFATIC)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/03/2009      ENDING DATE: 31/03/2010  
CHIEF RESEARCHER: María Begoña García Zapirain

33. PROJECT TITLE: Haur-Zaintz@ "Desarrollo de una solución tecnológica de ayuda al diagnóstico, seguimiento y evolución de trastornos del neurodesarrollo infantil."  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/02/2009      ENDING DATE: 31/12/2009  
CHIEF RESEARCHER: María Begoña García Zapirain

32. PROJECT TITLE: Parametrización de la actividad neuronal mediante resonancia magnética. (DISLEXRM2)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/01/2009      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: María Begoña García Zapirain

31. PROJECT TITLE: Análisis de la Activación Neuronal Mediante Resonancia Magnética Funcional en Pacientes Disléxico. DISLEXRM  
FUNDING ENTITY: Ministerio de Ciencia e Innovación  
STARTING DATE:01/01/2009      ENDING DATE: 31/12/2011  
CHIEF RESEARCHER: María Begoña García Zapirain

30. PROJECT TITLE: Identificación de nuevos marcadores morfológicos y moleculares de utilidad en el diagnóstico diferencial entre nevi benignos y melanoma maligno. DERMOGEN  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. SAIOOTEK Program  
STARTING DATE:01/10/2009      ENDING DATE: 31/12/2010  
CHIEF RESEARCHER: Ibon Ruiz Oleagordia

29. PROJECT TITLE: Desarrollo de un software de diagnóstico y estadificación de lesiones cutáneas basado en algoritmos de procesamiento digital de imagen (DERMOPAS)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/11/2008      ENDING DATE: 31/12/2009  
CHIEF RESEARCHER: Ibon Ruiz Oleagordia

28. PROJECT TITLE: Parametrización de la actividad neuronal mediante resonancia magnética.(DISLEXRM)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/11/2008      ENDING DATE: 31/12/2009  
CHIEF RESEARCHER: María Begoña García Zapirain

27. PROJECT TITLE: ROAD60: Retos y oportunidades digitales para una mejor calidad de vida en la población de personas mayores  
FUNDING ENTITY:  
STARTING DATE:10/2008 ENDING DATE: 12/2010  
CHIEF RESEARCHER: Diego López de Ipiña González de Artaza

26. PROJECT TITLE: Desarrollo del Diagnóstico, Rehabilitación y Aprendizaje de la Voz Esofágica a través del Uso de las TICs (ESOFATIC)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/07/2008 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

25. PROJECT TITLE: Full EasyPAS  
FUNDING ENTITY: Universidad de Deusto  
STARTING DATE:01/06/2008 ENDING DATE: 01/06/2009  
CHIEF RESEARCHER: María Begoña García Zapirain

24. PROJECT TITLE: Nuevo dispositivo biométrico para el acceso a entornos restringidos (BIOKEY 2)  
FUNDING ENTITY: Spanish Ministry of Employment and Social Security. AVANZA Program  
STARTING DATE:01/05/2008 ENDING DATE: 31/12/2009  
CHIEF RESEARCHER: María Begoña García Zapirain

23. PROJECT TITLE: Software para la Voz Esofágica (II)  
FUNDING ENTITY: Spanish Ministry of Foreign Affairs and Cooperation  
STARTING DATE:01/01/2008 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

22. PROJECT TITLE: Soluciones Tecnológicas para la Vida Diaria de los Mayores. e-SENIOR\_SOLUTIONS  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. INNOTEK  
STARTING DATE:01/01/2008 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

21. PROJECT TITLE: Soluciones Tecnológicas para la Vida Diaria de los Mayores. e-SENIOR\_SOLUTIONS  
FUNDING ENTITY: Spanish Ministry of Industry, Trade and Tourism. PROFIT TRACTOR Program  
STARTING DATE:01/01/2008 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

20. PROJECT TITLE: Home Biometrika (BIOHOME)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/01/2008 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

19. PROJECT TITLE: Evaluación objetiva de patologías vocales en base a criterios acústicos y de modelado gráfico (II)  
FUNDING ENTITY: Spanish Ministry of Foreign Affairs and Cooperation  
STARTING DATE:01/01/2008 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

18. PROJECT TITLE: Mejora y evaluación objetiva de la voz esofágica en tiempo real  
FUNDING ENTITY: Spanish Ministry of foreign affairs.  
STARTING DATE: 01/01/2007 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: Begoña García Zapirain

17. PROJECT TITLE: Análisis Objetivo de Lesiones Dermatológicas con Riesgo de Melanoma (AOLDERM)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE:01/10/2007 ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

16. PROJECT TITLE: Sistema de adaptación de software técnico para personas con discapacidad visual y auditiva (SADAV)  
FUNDING ENTITY: Spanish Ministry of Industry, Trade and Tourism.  
STARTING DATE:01/06/2007      ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

15. PROJECT TITLE: Nuevo dispositivo biométrico para el acceso a entornos restringidos (BIOKEY)  
FUNDING ENTITY: Spanish Ministry of Industry, Trade and Tourism. PROFIT Program  
STARTING DATE:01/03/2007      ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

14. PROJECT TITLE: Software para la Voz Esofágica (I)  
FUNDING ENTITY: Spanish Ministry of Foreign Affairs and Cooperation  
STARTING DATE:01/01/2007      ENDING DATE: 31/12/2007  
CHIEF RESEARCHER: María Begoña García Zapirain

13. PROJECT TITLE: EVALUACIÓN OBJETIVA DE PATOLOGÍAS VOCALES EN BASE A CRITERIOS ACÚSTICOS Y DE MODELADO GRÁFICO (I)  
FUNDING ENTITY: Spanish Ministry of Foreign Affairs and Cooperation  
STARTING DATE:01/01/2007      ENDING DATE: 31/12/2007  
CHIEF RESEARCHER: María Begoña García Zapirain

12. PROJECT TITLE: Sistema de Adaptación de Software Técnico para Personas con Discapacidad Visual y Auditiva (AVAS)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE:01/01/2007      ENDING DATE: 31/12/2008  
CHIEF RESEARCHER: María Begoña García Zapirain

11. PROJECT TITLE: Diagnóstico Asistido Remoto por la voz a partir de medidas biométricas y otras parametrizaciones (DAREVOZ)  
FUNDING ENTITY: Spanish Ministry of Science and Education  
STARTING DATE:01/01/2007      ENDING DATE: 31/12/2009  
CHIEF RESEARCHER: Juan Ignacio Godino Llorente

10. PROJECT TITLE: Diagnóstico automatizado del cáncer de laringe (DIACLA)  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE:01/11/2006      ENDING DATE: 31/12/2007  
CHIEF RESEARCHER: María Begoña García Zapirain

9. PROJECT TITLE: BIOGILTZ I. Giltza Biometrikoa. Programa Innotek  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE:01/07/2006      ENDING DATE: 31/12/2007  
CHIEF RESEARCHER: María Begoña García Zapirain

8. PROJECT TITLE: Biogiltz II. Giltza Biometrikoa  
FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.  
STARTING DATE:01/07/2006      ENDING DATE: 31/12/2007  
CHIEF RESEARCHER: María Begoña García Zapirain

7. PROJECT TITLE: Amélioration Temps- Réel de la Voix des Personnes ayant subi une Ablation du Larynx (Voix Oesophagiennes)  
FUNDING ENTITY: L'Institut National De Recherche En Informatique Et En Automatique (Inria)  
STARTING DATE:01/01/2006      ENDING DATE: 31/12/2009  
CHIEF RESEARCHER: María Begoña García Zapirain

6. PROJECT TITLE: Regeneración de la voz esofágica (REVOES)  
FUNDING ENTITY: University of Deusto  
STARTING DATE:01/01/2006      ENDING DATE: 31/12/2007  
CHIEF RESEARCHER: María Begoña García Zapirain

5. PROJECT TITLE: Evaluación objetiva de la Evolución de las Enfermedades de la Voz

(MEDIPROC)

FUNDING ENTITY: Department of Industry, Trade and Tourism of the Basque Government.

STARTING DATE:01/10/2005            ENDING DATE: 31/12/2006

CHIEF RESEARCHER: María Begoña García Zapirain

4. PROJECT TITLE: Descripción articuladora experimental y modelizada de los sonidos del euskara (DAREMOSE)

FUNDING ENTITY: Department of Education, Universities and Research of the Basque Government

STARTING DATE:01/07/2005            ENDING DATE: 30/06/2008

CHIEF RESEARCHER: Rosa Miren Pagola Petirena

3. PROJECT TITLE: Mejora de la inteligibilidad en las comunicaciones telefónicas entre laringectomizados (LARPHONE)

FUNDING ENTITY: Microsystem Engineering, Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/11/2004 ENDING DATE: 31/12/2005

CHIEF RESEARCHER: María Begoña García Zapirain

2PROJECT TITLE: Sistema de regeneración esofágica (ESOIMPROVE)

FUNDING ENTITY: Microsystem Engineering, Department of Industry, Trade and Tourism of the Basque Government. STARTING DATE:01/01/2003 ENDING DATE: 31/12/2004

CHIEF RESEARCHER: José María Angulo Usategui

1. PROJECT TITLE: Sistema de regeneración esofágica

FUNDING ENTITY: University of Deusto

STARTING DATE:01/01/2002            ENDING DATE: 31/12/2002

CHIEF RESEARCHER: María Begoña García Zapirain

74. Alain Sanchez-Gonzalez; Begonya Garcia-Zapirain; Daniel Sierra-Sosa, Ph.D.; Adel Elmaghraby. "Automatized Colon Polyp Segmentation via Contour Region Analysis". *Computers in Biology and Medicine*. 2018. Q2.
73. Jan Derkacz, Mikołaj Leszczuk, Michał Grega, Arian Koźbiał, Fernando Jorge Hernández, Amaia Mendez Zorrilla, Begoña García Zapirain, Kamel Smaïli. "Definition of Requirements for Accessing Multilingual Information Opinions". *Multimedia Tools and Applications* manuscript. 2018. Q2.
72. Blázquez Martín D, De La Torre I, Garcia-Zapirain B, Lopez-Coronado M, Rodrigues J. "Managing and Controlling Stress Using mHealth: Systematic Search in App Stores". *JMIR Mhealth Uhealth*. 2018. Q1.
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70. Elena Lopez de Dicastillo, Begonya Garcia-Zapirain, PhD,1 Maria Teresa Axpe Fernandez, Isabel de la Torre Diez, PhD,Ibon Oleagordia,and Antonio Apezetxea Celaya. "Development and Evaluation of a Telematics Platform for Monitoring of Patients in Ambulatory Major Surgery". *Telemedicine and e-Health*. 2018. Q2.
69. Mohammed Elmogy, Begonya Garcia-Zapirain, Adel Elmaghraby, Ayman Elbaz. "Classification of Pressure Ulcer Tissues with 3D Convolutional Neural Network". *Medical & Biological Engineering & Computing*. 2018. Q2.
68. Sofia Zahiaa, Daniel Sierra-Sosa, Begonya Garcia-Zapirain, Adel Elmaghrabya. "Tissue classification and segmentation of pressure injuries using convolutional neural networks". *Computer Methods and Programs in Biomedicine*. 2018. Q1.
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66. Jose Luis García Arroyo, Begonya Garcia Zapirain. "Recognition of pigment network pattern in dermoscopy images based on fuzzy classification of pixels". *Computer Methods and Programs in Biomedicine*. 2018. Q2.

65. Maite Frutos-Pascual, Begonya García-Zapirain. "Review of the Use of AI Techniques in Serious Games: Decision Making and Machine Learning.". *IEEE Transactions on Computational Intelligence and AI in Games*. 2017. Q3.
64. De la Torre I, García-Zapirain B, López-Coronado M, Rodrigues J, Del Pozo C. "A New mHealth App for Monitoring and Awareness of Healthy Eating: Development and User Evaluation by Spanish Users.". *Journal of Medical Systems*. 2017. Q2
63. De La Torre, I. Hamrioui S., García Zapirain B., Saleem K., Rodrigues J. "A Systematic Review of Security Mechanisms for Big Data in Health and New Alternatives for Hospitals". *Wireless Communications and Mobile Computing*. 2017. JCR(2016)= 1,899. Q2.
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61. García-Arroyo JL., García Zapirain B. "Recognition of pigment network pattern in dermoscopy images based on fuzzy classification of pixels". *Computer Methods and Programs in Biomedicine*. 2017. <https://doi.org/10.1016/j.cmpb.2017.10.005>. JCR(2016)= 1,555. Q2.
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58. Jose Antonio Urigüen, Begoña García-Zapirain, Julio Artieda, Jorge Iriarte, Miguel Valencia. "Comparison of background EEG activity of different groups of patients with idiopathic epilepsy using Shannon spectral entropy and cluster-based permutation statistical testing". *Plos one*. September 2017. JCR= 2,806(2016) IF=

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54. Jose Luis García Arroyo and Begoña García Zapirain. "Segmentation of skin lesions based on fuzzy classification of pixels and histogram thresholding". *IEEE Journal of Biomedical and Health Informatics*. 2017. JCR= 2.093 (2015) Q1, 29/144 (COMPUTER SCIENCE).
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34. Nuria Aresti-Bartolome and Begonya Garcia-Zapirain. Cognitive rehabilitation system for children with Autism Spectrum Disorder using serious games: A pilot study. *Bio-Medical Materials and Engineering*. 26 (s1). 811-824. DOI: 10.3233/BME-151373. (ISSN 0959-2989) JCR(2013)=0.847. Q4. 62/77 (ENGINEERING, BIOMEDICAL). 2015
33. Amaia Méndez Zorrilla and Begoña García Zapirain. Vocal Folds Morphological Pathologies Detection using Gabor Filtering and Principal Components Analysis. *Technology and Health Care* (2015). IOS Press. (ISSN: 0928-7329) JCR(2013)=0.636. Q4. 67/76 (ENGINEERING, BIOMEDICAL) 2015
32. Yolanda Garcia-Chimeno; Begonya Garcia-Zapirain. hClass: Automatic classification tool for health pathologies using Artificial Intelligence Techniques. *Bio-Medical Materials and Engineering*, 26. S1821-S1828. DOI: 10.3233/BME-151484. (ISSN 0959-2989) JCR(2013)=0.847. Q4. 62/77 (ENGINEERING, BIOMEDICAL). 2015
31. Natalia Wrońska, María Begoña Garcia-Zapirain, Amaia Mendez-Zorrilla. iPad-based Tool for Improving Skills of Children with Attention Deficit Disorder. *International Journal of Environmental Research and Public Health*, 12, 6261-6280. DOI: 10.3390/ijerph120606261 (ISSN 1660-4601). JCR(2013)= 1.993, Q2, 90/215 (ENVIRONMENTAL SCIENCES). 2015
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17. Maite Frutos Pascual, Begoña García Zapirain, Amaia Méndez Zorrilla, Itxaso Bustos Mardones. *Language Improvement System Based on Serious Games and Voice Recognition Algorithms for Children and Teenagers with Autism Spectrum and Lack of Language Competences*. *International Journal of Intelligent Games and Simulation*, Vol.6, N.2, pp. 18-26, 2011.
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14. Amaia Méndez Zorrilla, Begoña García Zapirain, Gonzalo Eguiluz, Ibon Oleagordia

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  11. Begoña García, Amaia Méndez, Ibon Ruiz. "Neuro Wii: Game as a treatment for attention deficit and hiperactivity disorders". International Journal of Intelligent Games and Simulation. IJIGS. Vol: 5/2. 2009. ISBN/ISSN: 1477-2043
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  1. Jose María Angulo Usategi; Ignacio Angulo Martínez; Begoña García Zapirain. Una Aplicacion Del Bus I2 Para Microcontroladores Pic. Todo Electrónica. pp. 59 - 62. 1998.

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23. Authors: Alain Sánchez-González, Begonya García-Zapirain.  
Title: Colonoscopy image preprocessing for the development of computer aided diagnosis tools  
Chapter: Colonoscopy image preprocessing for the development of computer aided diagnosis tools  
Editorial: Surgical Robotics. INTECH, Editors: Serdar Kucuk, pp.20
24. Authors: Jose Luis García Arroyo and Begoña García Zapirain.  
Title: Dermoscopy Image Analysis  
Chapter: Comparison of image processing techniques for reticular pattern recognition in melanoma detection  
Editorial: CRC Press/Taylor & Francis (2015). Pp. 131-181.
22. Authors: María Viqueira Villarejo, Begoña García Zapirain, Amaia Méndez Zorrilla  
Title: Medical Imaging in Clinical Practice  
Chapter 6: Ocular Movement and Cardiac Rhythm Control using EEG techniques  
Editorial: InTech (2013)  
ISBN: 980-953-307-710-4

21. Authors: Amaia Méndez Zorrilla, Begoña García Zapirain.  
Title: Medical Imaging in Clinical Practice  
Chapter 8: Vocal Folds Stroboscopic Image Processing for Otolaryngology  
Editorial: InTech (2013)  
ISBN: 980-953-307-710-4
20. Authors: A Simancas; Amaia Méndez Zorrilla; Begoña García Zapirain.  
Title: Advances In Medicine And Biology 69, Pp. 237 - 248.  
Chapter: Augmentative Communication Application For People With ASD Using Android Devices (Advances In Medicine And Biology).  
Editorial: Nova Science Publishers, 2013.
19. Authors: Jose Luis García Arroyo; Begoña García Zapirain.  
Title: Computer Vision Techniques For The Diagnosis Of Skin Cancer (CVTDSC 2013). Series In Bioengineering. Pp. 139 - 192.  
Chapter: Automated Detection Of Melanoma In Dermoscopic Images  
Editorial: Springer, 2013.
18. Authors: Alberto Ochoa; Nemesio Castillo Viveros; Lourdes Margain; Begoña García Zapirain; Amaia Méndez Zorrilla.  
Title: Blurring Organizational Issues And Social Phenomena In The Age Of Technology: A Multidisciplinary Perspective.  
Editorial: Univ. Autonoma De Ciudad Juarez, 2013.
17. Authors: Nuria Aresti Bartolome; Begoña García Zapirain.  
Title: Advances In Medicine And Biology. 69.  
Chapter: Detection Of Gaze Atypical Pattern: A Systematic Review Of Eye Tracking In The Autistic Spectrum Disorders.  
Editorial: Nova Science Publishers, 2013.
16. Authors: Aitor Santos Ortuzar; Begoña García Zapirain; Amaia Méndez Zorrilla.  
Title: Horizons In Neuroscience Research 12, Pp. 215 - 230.  
Chapter: Eeg Processing And Feature Extraction For Objective Diagnosis Of Neuronal Diseases As ADHD.  
Editorial: Nova Science Publishers, 2013.
15. Authors: Maite Frutos Pascual; Begoña García Zapirain.  
Title: Advances In Medicine And Biology 69  
Chapter: Evolution And Use Of Serious Games For Health: Review And Practical Case About People With ADHD.  
Editorial: Nova Science Publishers, 2013.
14. Authors: Fernando Jorge Hernández; Begoña García Zapirain.  
Title: Horizons In Neuroscience Research 12, Pp. 239 - 253  
Chapter: fMRI Images Processing With Machine Learning Techniques: A State Of The Art Review  
Editorial: Nova Science Publishers, 2013.
13. Authors: Javier Vicente Sáez; Begoña García Zapirain.  
Title: Advances In Engineering Research. 8  
Chapter: Hardware Acceleration Unit-Based Signal Processing Reconfigurable Through Software  
Editorial: Nova Science Publishers, 2013.
12. Authors: Begoña García Zapirain; Amaia Méndez Zorrilla.  
Title: Handbook of Research on ICTs for Human-Centered Healthcare and Social Care Services.  
Chapter: Independent Living Support For Disabled And Elderly People Using Cell Phones.  
Editorial: IGI Global, 2013.
11. Authors: Gonzalo Eguiluz Pérez; Begoña García Zapirain.  
Title: Advances In Engineering Research. 7, Pp. 125 - 152.  
Chapter: Technologies For Depth Measurement In Images: A State-Of-The-Art Review  
Editorial: Nova Science Publishers, 2013.
10. Authors: Begoña García Zapirain, Ibon Ruiz Oleagordia, Amaia Mendez  
Title: Advanced in Wavelet Theory and their applications in Engineering, Physics, and Technology  
Chapter 5: Oesophageal Speech's Formants Measurement Using Wavelet Transform  
Editorial: In-Tech (2012)

#### **Indexed Journals**

9. Authors: María Viqueira, Begoña García Zapirain, Amaia Mendez, Ibon Ruiz Oleagordia,  
Title: Advanced in Wavelet Theory and their applications in Biology and Geoscience  
Chapter 5: Wavelet Transform for the analysis of EEG signals in patients with oral communications problems.  
Editorial:In-Tech (2012)  
ISBN: 978-953-51-0212-0
8. Authors: Ibon Ruiz Oleagordia ,Begoña García Zapirain  
Title: Advanced in Wavelet Theory and their applications in Biology and Geoscience  
Chapter 5: Improvement of shimmer parameter of oesophageal voices Using Wavelet Transform. pp. 139 - 160.  
Editorial:In-Tech (2012)  
ISBN: 978-953-51-0212-0
7. Authors: Begoña García Zapirain, Ibon Oleagordia Ruiz, Amaia Méndez Zorrilla, Mikel Mendezona  
Title: Speech Processing and Auditory Processing Disorders: Causes, Diagnosis and Treatment  
Chapter 6: Oesophageal Voice, Objective Quality Assessment  
Editorial: Nova Science Publishers (2011)  
ISBN: 978-1-61470-795-0
6. Authors: B. García, A. Méndez, I. Ruiz, J. Vicente, Agustín Pérez  
Title: La voz esofágica: Evaluación objetiva en procesos de diagnóstico, rehabilitación y aprendizaje  
Editor: Deusto (2009)  
ISBN: 84-9830-186-6
5. Authors: B. García, I. Ruiz, A. Méndez,  
Title: Recent Advances in Signal Processing  
Chapter: Audio and Image Processing easy learning for engineering students using easyPAS Tool  
Editorial:In-Tech (2009)  
ISBN: 978-953-307-002-5
4. Authors:García, I.Ruiz, J. Vicente, A. Mendez.  
Title: Lecture Notes in Computer Science 2009  
Chapter: "BIOHOME: A House Designed for Assisted Living".  
ISBN/ISSN: 0302-9743
3. Authors:B. García, A. Mendez, I.Ruiz, J. Vicente.  
Title: Lecture Notes in Computer Science 2009  
Chapter: "Biometric Access Control System for AAL  
ISBN/ISSN: 0302-9743
2. Authors:I.Ruiz, B. García, A. Mendez.  
Title: Lecture Notes in Computer Science 2009.  
Chapter: "Technological Solution for Independent Living of Intellectual Disabled People.  
ISBN/ISSN: 0302-9743
1. Authors: Angulo Usategui, José María; García Zapirain, María Begoña; Vicente Sáez, Javier; Angulo Martínez, Ignacio;  
Title: Microcontroladores Avanzados dsPIC  
Editorial: Paraninfo (2006)  
ISBN: 84-9732-385-8

## Membership of Professional Organisations

15. Representative of the University of Deusto in the European Joint Action Ja-Chrodis Addressing Chronic Diseases and Healthy Ageing across the life cycle.
14. Member of IEEE (Institute of Electrical and Electronics Engineers)
13. Collaborator in the Thematic Network on Innovation for Age-Friendly Environments (AFE-INNOVNET, European Commission).
12. Collaborator in Territoires de Demain and Arenotech Networks.
11. Collaborator in AgeinWell Network.
10. Main Researcher of LS2TECH, in the Red de Espacios Sociales de Innovación ESdl.
9. Main Researcher of eVIDA research group, recognized by the Basque Government.
8. Researcher at "Nuevas tecnologías en salud y servicios sociales de Kronikgune (Centro de excelencia internacional en investigación sobre cronicidad)".
7. Peer reviewer for Akredita Chile.
6. Organizing Committee Member of several International Conferences:  
 Traitement et Analyse de l'Information Méthodes et Applications (TAIMA) 2007-2013; Flexible Automation and Intelligent Manufacturing (FAIM) 2005; 3RD Advanced Voice Function Assessment International Workshop (AVFA) 2009; International Symposium on Image/Video Communications (ISIVC) 2010; Jornadas de Accesibilidad y Nuevas Tecnologías (JANT) 2004
5. Scientific Committee Member of several International Conferences:  
 International Symposium on Signal Processing and its Applications - ISSPA 2007 (IEEE Y EURASIP); IEEE Symposium on Signal Processing and Information Technology (ISSPIT) 2010-2011; Traitement et Analyse de l'Information Méthodes et Applications (TAIMA) 2007-2013; International Conference on Communications, Networking and Information Technology (MIC-CNIT) 2013, and others.
4. Reviewer of several international scientific journals:
3. Sensors (MDPI), JCR, 2012-2015; Journal of Medical Systems. Springer. JCR. 2010-2013; Biomedical Signal Processing and Control JCR; IEEE RITA. 2008-2011; Revista de Ingenieria. 2010-2011; EURASIP Journal on Advances in Signal Processing. 2009; CESEI-CTAE. 2009-2013; INT. Journal of Computer Systems, Science and Engineering. 2010; Journal of Sensor and Actuator Networks. 2012; Journal of Intelligent Games and Simulation. 2011-2013; BJAST; Future Generations; DYNA; International Journal of Biochemistry Research and Review, and others.
2. Evaluator of the Best PhD Dissertation and Best Final Year Project Awards at the Colegio Oficial de Ingenieros de Telecomunicación.
1. Member of the Management Committee of Asociación Europea de la Red de Living Labs y Espacios de Innovación de América latina y el caribe.

## Presentations at seminars and conferences

- More than 160 referred papers in conferences such as ICIP, ICASSP, EUSIPCO, EMBC, Biomed, ISSPIT, IWAAL, ISSPA, EDUCON, IGIP, REHAB, GIC, ICBE, ISAMI, INTERTECH, CGames, ISIVC, BIOSIGNAL, etc. Some of the most relevant are listed below:
28. Mohammed Elmogy, Begona Garcia-Zapirain, Connor Burns, Adel Elmaghraby, Ayman El-Baz "Tissues classification for pressure ulcer images based on 3d convolutional neural network". International Conference on Image Processing- **ICIP 2018**.  
 Doi:10.1109/ICIP.2018.8451119
  27. O. Dekhil, M. Ali, A. Shalaby, A. Mahmoud, A. Switala, M. Ghazal, H. Hajdiab, B. Garcia-Zapirain, A. Elmaghraby, R. Keynton, G. Barnes, A. El-Baz. "Identifying Personalized Autism Related Impairments Using Resting Functional MRI and ADOS Reports". **MICCAI 2018**: Medical Image Computing and Computer Assisted Intervention. [https://doi.org/10.1007/978-3-030-00931-1\\_28](https://doi.org/10.1007/978-3-030-00931-1_28)
  26. J. J. Lamas-Seco, P. M. Castro, A. Dapena, F. J. Vázquez-Araujo, B. Garcia-Zapirain, "SimSiVIDS: Modelling of an Inductive Sensor for Traffic

- Applications", UKSim-AMSS 9th European Modelling Symposium on Mathematical Modelling and Computer Simulation, October 6-8, 2015, Madrid, Spain.
25. Maestro Saiz, I., Lopetegui Alba, E., O'Toole, J. M., Garcia Zapirain, B., Anaya-Chen, A. B., & Yurrebaso Santamaria, I. (2014, June). Synchronization And Brain Connectivity In Patients With Focal Periodic Activity In Scalp EEG: Ictal Features. In European Congress on Epileptology 2014. Stockholm, Suecia.
  24. B. García, A. Mendez, I. Ruiz, J. Vicente. "Multipas: Java, C++ and C# to Octave Bridges". In Proc. Of **IEEE ICASSP 2009**. Taipei. Taiwan.
  23. B. García, I. Ruiz, A. Méndez. "Oesophageal speech enhancement using poles stabilization and Kalman filtering". In Proc. of **ICASSP 2008**. Honolulu. USA
  22. B. García; J. Vicente; I. Ruiz; A. Alonso; E. Loyo. "Esophageal Voices: Glottal Flow Regeneration". IEEE ICASSP 2005. Philadelphia. USA.
  21. E.M. Ismaili, A. Mendez, E. Ibn-Elhaj, B. García. "Keyframes and Analysis in Vocal Folds Recordings using Hierarchical Motion Techniques and Texture Information". ICIP 2009. El Cairo. Egipto.
  20. A. Mendez, E.M. Ismaili, B. García, E. Ibn-Elhaj, I. Ruiz. "Glottal Space Segmentation from Motion Estimation and Gabor Filtering". In Proc. of **EMBC 2009**. 31th. Minneapolis. USA.
  19. John M O' Toole, Maria Begoña García Zapirain, Iratxe Maestro Saiz, Alina Beatriz Anaya, Izaskun Yurrebaso Santamaria. Estimating the Time-Varying Periodicity of Epileptiform Discharges in the Electroencephalogram. ISSPA 2012 Montreal, 2012.
  18. Nuria Aresti Bartolomé, Amaia Méndez Zorrilla, Begoña García Zapirain. Using Serious Games in Dyslexia Treatment. BioMed 2013. Innsbruck, Austria.
  17. Adel Elmaghraby, Amaia Mendez, Begoña Garcia Zapirain, Walaa Sheta, Saleh el Shehaby. Serious Games and Health Informatics: A Unified Framework. CGAMES 2012, Louisville, Kentucky, USA.
  16. Ishaq R., García Zapirain B., Adaptive Gain Equalizer for Improvement of Esophageal Speech. ISSPIT 2012. Ho Chi Minh City. Vietnam.
  15. Nuria Aresti Bartolomé; Begoña García Zapirain; Amaia Méndez Zorrilla. Innovative System for Cognitive Brain Enhancement and Language Disorders Treatment Using a Virtual Reality Environment. CGAMES 2012, Louisville, Kentucky, USA.
  14. Francisco Javier Oliver Bernal; María Begoña García Zapirain. Students' Attitudes to Engineering Education. Educon 2012, Marrakech, Morocco.
  13. Begoña García Zapirain, Amaia Mendez Zorrilla, Gonzalo Eguiluz, Javier Oliver. Videoconference Software for E-Learning of Communication Theory for Telecommunications Engineering Students. XII International Conference on Engineering and Technology Education (InterTech), Dili, East Timor, 2012.
  12. Amaia Méndez, Eneko Lopetegui, Begoña García. FLDA and PCA Classification Supported by an Adapted Block Matching Algorithm to Diagnose Vocal Folds Paralysis. IASTED-International Conference on Biomedical Engineering. Innsbruck, Austria 2012.
  11. Zelai Sáenz de Urturi, Amaia Méndez Zorrilla and Begoña García Zapirain. A Serious Game for Android Devices to Help Educate Individuals with Autism on Basic First Aid. In Advances in Intelligent and Soft Computing, Volume 151/2012, 609-616, 2012.
  10. Nicolas Boulesteix, Javier Vicente, Begoña García Zapirain, Amaia Méndez. Stress Telecare Using a Smart Device Controller. IWAAL, Vol. 6693 Springer (2011), p. 192-200.
  9. José Luis García Arroyo, Begoña García Zapirain and Amaia Méndez Zorrilla. Quantitative Study and Monitoring of the Growth of Lung Cancer Nodule Using an X-Ray Computed Tomography Image Processing Tool. Lecture Notes in Computer Science, 2011, Volume 6692/2011, 74-82, DOI: 10.1007/978-3-642-21498-1\_10.
  8. Marouen Azzouz, Begoña García Zapirain, Ibon Ruiz and Amaia Méndez. Oesophageal Voice Harmonic to Noise Ratio Enhancement over UMTS Networks Using Kalman-EM. Lecture Notes in Computer Science, 2011,

Volume 6691/2011, 265-272, DOI: 10.1007/978-3-642-21501-8\_33.

7. Ruiz Oleagordia, B. García Zapiroin, A. Méndez Zorrilla. "Two approaches of Kalman filtering for oesophageal speech". In Proc. Of 10th International Conference on Information Science, signal Processing and their applications. ISSPA 2010. Kuala Lumpur. Malaysia.
6. Méndez Zorrilla, Noha El-Zehiry, B. García Zapiroin, Adel Elmaghraby. "Pathological vocal folds diagnosis using modified Active Contour Models". In Proc. Of 10th International Conference on Information Science, signal Processing and their applications. ISSPA 2010. Kuala Lumpur. Malaysia.
5. Begoña García Zapiroin, Amaia Méndez, Sabin Larrañaga. "The game of tangram with augmented reality as a tool for psychostimulation". In proc. Of CGames 2010, Louisville. USA.2010.
4. A. Gola, B. García, A. Méndez, I. Ruiz, "Automated Diagnosis of Melanomas based on Globular and Reticular Pattern Recognition Algorithms for Epiluminiscence Images", European Signal Processing Conference (EUSIPCO), Aalborg, Dinamarca, 2010.
3. Mendez, B. García, I. Ruiz, I. Iturricha. "Glottal Area Segmentation without Initialization using Gabor Filters". In Proc. Of IEEE International Symposium on Signal Processing and Information Technology. ISSPIT 2008. 9th. Sarajevo. Bosnia & Herzgovina. 2008.
2. Oleagordia Ruiz, Ibon ;Garcia Zapiroin, Begoña. "Enhancement Of Shimmer In Oesophageal Speech Using Different Wavelets". ISSPIT 2013, Atenas, Greece.
1. Ishaq, Rizwan;Garcia Zapiroin, Begoña. "Esophageal Speech Enhancement using Modified Voicing Source". ISSPIT 2013, Atenas, Greece.



## Honours and awards

14. Premio management solutions para Jon Ibáñez Gilsanz por el proyecto de fin de grado. 2018.
13. Premio mejor proyecto Fin de carrera a Jon Iarizgoitia otorgado por la Universidad de Deusto. 2017.
12. Premio mejor proyecto Fin de carrera a Jon Iarizgoitia otorgado por el Colegio Oficial de Ingenieros de Telecomunicación. 2017.
11. Premio mejor proyecto Fin de carrera a Leire Lopez otorgado por la Universidad de Deusto. 2017.
10. Premio mejor proyecto Fin de carrera a Leire Lopez otorgado por el Colegio Oficial de Ingenieros de Telecomunicación. 2017.
9. Mujer y Tecnología Award – Fundacion Orange 2016.
8. Accésit Research Award UD-Grupo Santander 2015.
7. Accesit: DonaTIC Award 12x12 2015.
6. Accesit: Ada Byron Award to the Technologist Woman 2015.
5. Finalist in "Social Innovation in Ageing – The European Award 2014".
4. Best student of Executive MBA 2011.
3. Best Paper Award. CGAMES09.
2. Research Award: UD- Banco Santander. 2007.
1. Research Award: ONCE Euskadi-Solidarios. 2007.