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<th>Campos OBLIGATORIOS / NAHITAEZ bete beharreko eremuak</th>
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<td><strong>AÑO / URTEA (20xx):</strong> 2018</td>
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<tr>
<td><strong>Trabajo Fin de Grado (TFG) / Gradu Amaierako Lana (GAL)</strong> ☒</td>
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<td><strong>Trabajo Fin de Máster (TFM) / Master Amaierako Lana (MAL)</strong> ☐</td>
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<td><strong>Título del TFG/TFM / GAL/MALaren izenburua:</strong> Development of an air leak management system at Volkswagen Navarra</td>
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<tr>
<td><strong>Autor (Apellidos, Nombre) / Egilea (Deiturak, izena):</strong> Portella Lezaun, Berta</td>
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<td><strong>Director / Zuzendaria:</strong> Pedro Mª Diéguez Elizondo</td>
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<td><strong>UPNA / NUP ☒</strong></td>
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<td><strong>Codirector, si existe / Zuzendarikidea, halakorik badago</strong></td>
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<td><strong>María Larrayoz Izcara</strong></td>
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<td><strong>Otro (Indicar) / Beste bat (Jarri) Volkswagen Navarra ☐</strong></td>
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Abstract (Resumen de 100-250 palabras)/ Abstract (Laburpena 100-250 hitzetan)

This work is carried out at a time of big environmental responsibility for the company Volkswagen Navarra S.A. This is committed to reduce the consumption of energy, water, waste, CO2 and solvents in a 45% by the year 2025.

The main concern of the company is the reduction of electricity consumption due to the difficulty that presents and its big economic costs.

Particularly, the project is focused on compressed air consumptions as they suppose a 62% of the total electricity consumptions. Compressing air is one of the most expensive energies to produce.

The project was realized on the Sheet metal Workshop of the factory. This one is characterized because of its big automation level. It counts with more than 800 robots. As compressed air is required on the working of every robot of the workshop, their correct and optimized production and consumption are important issues on economic terms.

The principle problem of compressed air is the continuous appear of leaks and overconsumptions on the robots that use it, as well as the difficulties of detecting and controlling them.

From the maintenance department of the workshop, it was decided to develop a management system for the leaks. This is based on a program that analyzes consumption and displays a warning on the robot control computer wherever there is existence of leaks.

For this purpose, it was necessary to realize different study consumptions and improvement phases. These will be explained and shown below.

In conclusion, the objective of the Project was to design and create a computer program based on study consumptions that warns of leak existences and avoids unnecessary energy expenses. And after, once the technology for solving this problem is done, to create an intervention protocol for the factory.

Materias o Palabras Clave (máximo 5) / Gaiak edo hitz gakoak (gehienez 5)

Leak
Air
Consumption
Error
Savings
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<th>Idioma</th>
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