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|  | **HASAN KALYONCU UNIVERSITY**  **Computer Engineering Department** **CENG 499 Project Proposal Form** |

**Part I. Project Proposer**

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**Part II. Project Information**

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| **Starting Term** | |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 2 | 0 | 2 | 1 | / | 2 | 0 | 2 | 2 | |
| **Title of the Project** | 3D AR Object Platform |
| **Project Description** | |
| As Indevo Teknoloji, we are interested in creating 3D digital copies of real objects and viewing them in AR. In summary, the system will work as follows:  User A;  - Can upload any object in hand to the system so that it can be examined in 3D.  - Can do this by taking 2D photos or video recording with the help of any camera (even a mobile phone). The 3D AR object creation part should be done automatically by the system. The most accurate algorithm will be selected as a result of research and development.  - Can add product description.  - If the user is selling the product, the user can give the selling links.  - Can copy the AR object link of the object and share the link on social media platforms.  User B;  - Can view the 3D objects existing in the system (Zoom in, zoom out, rotate etc.).  - Can see the object description.  - Can view these objects as AR with the help of mobile application. In this way, the user can, for example, examine whether a product the user is planning to buy is compatible with the home decor.  - Can see and access selling product links on e-commerce platforms. | |
| **Project Justification** | |
| **Novelty** | |
| **New aspects** | There is no comprehensive application with these features yet. |
| **Complexity** | |
| **Challenging problem and issues** | The application needs both web and mobile development.  The 3D AR object creation part includes studies that require R&D. |
| **Related computer science fields and subfields** | Software Engineering, Computer Graphics, Web Programming, Mobile Programming |
| **Tools** | Any programming language, web programming environment and mobile app development environment. |
| **Risk involved** | |
| **Potential problems and alternative solutions** | It is aimed to develop original algorithms for 3D AR object creation. However, in case of any critical problem, ready-made libraries can be used. |
| **Minimum work required** | 3 students |