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MSCA Individual Fellowship Kazanmak Ne Kadar Kolay ?!

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İstanbul Teknik Üniversitesi

Tekstil Teknolojileri ve Tasarımı Fakültesi



Kimler Başvurmalı:

EĞER;



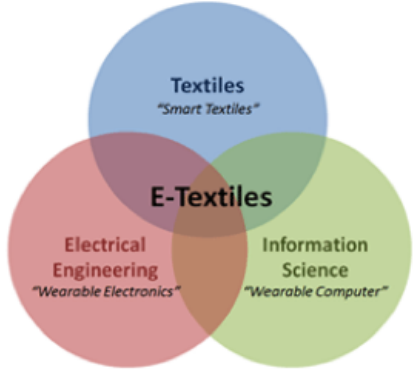
Güçlü özgeçmiş

Güçlü proje önerisi

Adil proje değerlendirme süreci

Güçlü Özgeçmiş

- Araştırma faaliyetinde geçen yıla göre kişisel değerlendirme



Multidisipliner çalışma
geçmiş



Etki değeri yüksek dergilerde/
konferanslarda yayınlar, alınan
atıflar



Alınan uluslararası ödüller,
burslar



Proje tecrübesi



Uluslararası araştırma tecrübesi



Güçlü proje fikri

Güçlü Proje Fikri

- Güçlü özgeçmiş \longrightarrow Güçlü proje fikri
- Proje çağrısı açılmadan önce proje fikriniz olmalı
- Proje yazım süreci teknik detaylara yoğunlaşmalı

- Özgeçmişinizle bağlantılı bir alanla orijinal bir fikir
- Multidisipliner
- Mutlaka yeni bir şeyler öğrenmelisiniz
- Bilimsel gelişimin yanında, kişisel gelişim
- Akedemi+özel kuruluş

- **Güçlü Proje Ekibi**
- Dr.Gökhan İnce, İTÜ
- Prof.Dr. Christian Cipriani, The BioRobotics Institute of Sant'Anna School of Advanced Studies, İtalya
- Rich Walker Managing director, Shadow Robot Company, İngiltere

Proje Detayları

- TexRobots: Textile based soft sensing actuators for soft robotic applications
- Panel: ENG -Information Science and Engineering
- Süre: 24 Ay
- Yürütücü Kuruluş: İstanbul Teknik Üniversitesi
- Kısa Ziyaretler: The BioRobotics Institute, 3 ay; Shadow Robot Company, 1 ay

1.Excellence

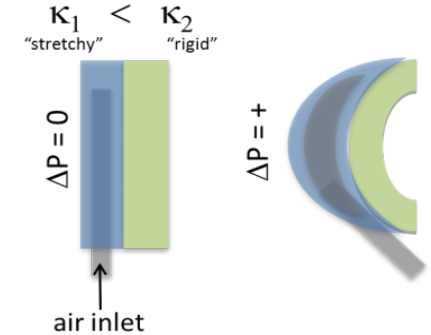
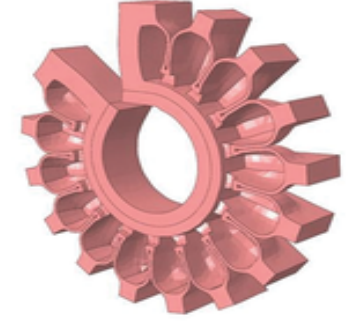
1.1 Quality and credibility of the research/innovation project; level of novelty, appropriate consideration of inter/multidisciplinary and gender aspect

-Since the early 1990's, robots have been used to aid the treatment of people with neuromuscular disabilities and soft robotics offers a unique platform to develop wearable assistive devices to empower human motions given their inherent conformability to the body and enables safe human-device interaction. **Ne yapmak istediğinizi ilk cümlelerde ifade edin.**
- This interdisciplinary (application of textile technology, computer, electronic, biomedical engineering and robotic knowledge of the team) project is designed.....**interdisipliner**
- where I will develop technical applied skills in control strategy, testing of the proposed device from functionality and usability aspects.....**Neler öğreneceksiniz**
- Other current Horizon 2020 projects such as EMISSR,¹⁹ SoRoHuMI,²⁰ HybridHeart,²¹ SomBoT,²² XoSoft,²³ iHand,²⁴ Answer,²⁵ SoftPro,²⁶ and BioAct.²⁷ **konuyla ilgili hali hazırda yürüyen H2020 projeleri**
- Furthermore, this project's expected results may also contribute improving the hand function of people with neuromuscular disabilities (Letter from Spastic Children's Foundation of Turkey (SCFT), **Destek mektubu, projenin insan hayatına etkisi**
- expected to increase from USD 312.5 million in 2017 to 3.326 billion in just five years.²⁸ **Projenin ekonomik etkisi**

1.1.2. State-of-the-art

- **Bu kısım çok önemli!!!**
- Konu ile ilgili bu zamana kadar yapılan çalışmaların eksi yönleri
- Sizin yapacağınız katkı nedir?

- Projemle ilgili gelinen teknoloji düzeyini post doktora sırasında yerinde inceledim.
- Sadece makale okumak yeterli değil.
- Konu ile ilgili kişilerle görüşün, beraber çalışın
- *“Although elastic materials offer some superior properties such as heat..... present challenges in wearable applications.....”*
- *“To address the challenges mentioned above, I will employ textile materials to achieve.....”*



1.1.3. Objectives ve 1.1.4. Research methodology and approach

- Objectives **liste halinde verilmeli** ve **iş paketleri ile ilişkilendirilmeli**
 - *“Research Objective 1 (Work Package 1): construction and characterization of TSAs. Research Objective 2 (Work Package 2): development of soft robotic glove at textile engineering department, at ITU.”*
 - **Project management** iş paketi olarak eklenmeli
-
- Research methodology kısmında maddelere geçmeden **önce giriş paragrafı yazın.**
 - *“During this project, I aim to leverage textile materials using.....”*
 - Yapacağınız işleri yaparken **birinci tekil şahıs kullanın, bu sizin projeniz!!**
 - **Çalışmayı yapacağınız yeri ve amacı belirtin.** *“In the User Experience (UX) lab in Computer Engineering and Informatics Faculty at ITU, I will perform to the design and evaluation of the human machine interface (HMI) and human computer interface (HCI) used in the project.*
 - **Önceki işlerinize atıf yapabilirsiniz”** *conductive loops will be separated from each other, thereby, increasing electrical resistance of the sensor, based on my previous experience, my CV → Section 4*
 - Grafik ve resimler kullanın

1.1.5.Originality of the planned research ve 1.1.6. Innovative aspects of the planned research

- Maddeler halinde projenin özgün ve inovatif yönlerini yazın.
 - state-of-art'a çok iyi bir şekilde hakim olmalısınız.
- “.....actuators will be tailored to mimic the movement of articulation **for the first time.**”*

1.1.7. The interdisciplinary aspects of the action ve 1.1.8 Gender Dimension

- *“.....is one of the specific examples of the alliance of a number of several researchers and experts in the textile, robotic, material science, control, biomedical and electronic engineering among others”*
- *thus, I plan to employ equal number of the human volunteers from both genders to conduct the tests.*

1.2. Quality and appropriateness of the training and of the two way transfer of knowledge between the researcher and the host

- **Karşılıklı bilgi transferi önemli!!**
- **Teknik bilginin yanında diğer kazanımlardan bahsedilmeli**
- *“ I will learn principles of microcontroller-based signal acquisition.....”*
- *“ITU-TTO office will provide assistance on EU Proposal writing and IPR and innovation management.”*
- **Ayrıntı vererek yazın (nerede, ne ,kimden vb.)**
- **Yürütücü kuruluştta sizin bilginizden faydalanmalı**
- *“I have already extensive knowledge of smart textiles structures and wearable electronics, which is originated from my master.....”.*
- **Verebileceğiniz derslerden, çalıştaylardan vb. maddeler halinde bahsedebilirsiniz**

1.3 Quality of the supervision and of the integration in the team/institution

- Çalışacağınız/veya öğreneceğiniz konu ile ilgili uzman kişiler olmalı
- Süpervizörleri iyi tanıtın (sahip oldukları patentler, öğrenci sayısı, sanayi işbirlikleri, uluslararası işbirlikleri, yayınlar, projeler)
- Proje konusu multidisipliner
- Tekstil üretim kısımları bana ait
- Süpervizörler kendimi geliştireceğim alandan seçildi (kontrol ve biomedikal)
- Secondment süpervizörü önemli

- **Çalışacağınız departmanları tanıtın**
- *“I will use facilities of textile engineering department to manufacture proposed TSAs and soft robotic glove at ITU.....”*
- **Secontment kuruluşlara entegrasyonu açıklayın**
- *“A postdoctoral fellow (See section Part2 B-5) will assist me during the secondment period of my project at Biorobotics Institute.”*

1.4. Potential of the researcher to reach or re-enforce professional maturity/ independence during the fellowship

- Bu kısım daha önce yaptıklarınız ve kazanacaklarınız ile ilgili
- Pozitif yönlerinizi öne çıkarın
- *“Through this fellowship, I expect to expand my knowledge from manufacturing side of the soft structures to the controlling and application of these structures by acquiring new skills.”*
- **“Leadership:** During my postdoc appointment at **Mobility:** *I have a strong track record of international mobility. I studied textile engineering in Turkey. Thereafter, I chose The University of Manchester for my MSc and PhD studies.”*

2.Impact

2.1 Enhancing the future career prospects of the researcher after the fellowship

- **Projenin akademik ve kişisel gelişime etkisi net ifadeler ile açıklanmalıdır.**
- *“I will also have an opportunity to investigate process of assistive device product development at the Shadow Robotic Company. This training will help me to convert my research outcomes into the real life products”*
- *“I am also planning to apply for a position of Associate Professor at ITU”*
- **Oluşturacağı işbirliklerinden bahsedilmelidir.**
- *“This research project has high capacity to develop lasting cooperation between ITU and The Biorobotics Institute, since they offer complementary teaching and research programs in the area of smart textiles, wearable electronics, and robotics”*
- **Başlatabileceği yeni proje önerilerinden bahsedilmelidir.**
- *“I also aim to apply Industrial R&D Projects Grant Programme with the industrial partner in order to develop mass manufacturing strategy for the proposed prototype.”*

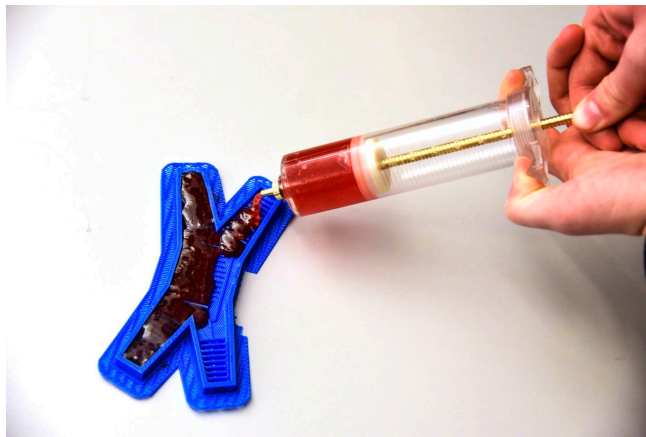
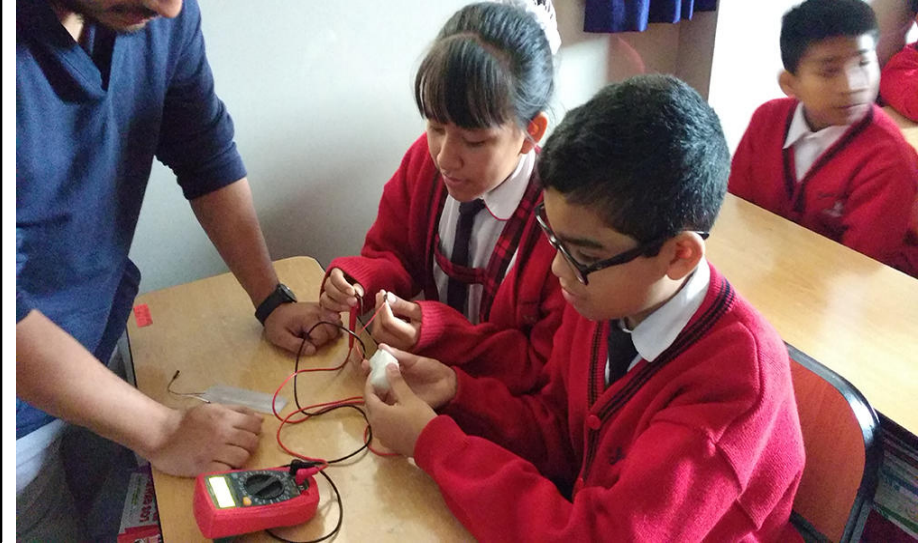
2.2 Quality of the proposed measures to exploit and disseminate the project results

- En standart bölümlerden bir tanesi
- Projenizin çıktılarını akademik dünya ve sanayi ile paylaşıyorsunuz.
- Konferanslar, makaleler, dersler, sanayi ile network (Kesin ifadeler olmalı; sayı , zaman, nerede,kiminle)
- Çıktı olarak bir ürün elde edilecekse fikri ve mülki hakların nasıl düzenleneceği ile ilgili bilgi verilmelidir.
- Yer sıkıntısından dolayı tablo yapmak faydalı

Activity	Target	Expected Impact
Scientific publications	My target is to publish 2-3 papers.....	
Participations in international conferences	1) RoboSoft 2019- IEEE RAS International Conference on Soft Robotics	
Seminars at ITU		
	This course aims to attract both undergrad and grad level students	To deliver the fundamentals of this highly new and exciting research area
Working with industrial partner SRC	Other research groups working on robotics, specifically on soft robotics for assistive and rehabilitative technologies	Building stronger network of researchers working on assistive technologies and soft robotics
		.

2.3. Quality of the proposed measures to communicate the project activities to different target audiences

- **Akademi ve sanayi dışındaki kitleyi hedef alıyor.**
- **Yaratıcı olun**
- *“1) Engaging with Spastic Children’s Foundation of Turkey. “*
- *“2) Organizing a workshop among young school students “ How to make your own soft robotics”. The workshop will focus on helping younger students, i.e., 10-14 years old become aware of the field of engineering through hands-on construction and activities “*
- **Bunun dışında standart aktiviteler, “Setting up a Marie Skłodowska-Curie Fellow website”**



3. Quality and Efficiency of the Implementation

3.1 Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources

- Workpackage, milestones ve deliverables tablo halinde verilmelidir
- Sayfa kısıtı var, tablo yapmak size yer kazandırır.

Work Packages (WP) WP1 Construction and characterization of TSAs (Research Objective 1);
List of major deliverables (D) D1.1 report on preparation fabric tubes with different stretch properties; D4.1 Learning about EMG measurement;
List of major milestones (M) M5 Validation of the device from usability side.....

- Kaliteli bir gantt chart hazırlayın.
- Bir bakışta projenizin aktivitelerini özetlesin

Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
WP1				D1.1			D1.2	M1																
WP2									D2.1	D2.2	M2													
WP3														D3.2		M3								
WP4																		D4.2	M4					
WP5																						D5.2	M5	
WP6			D6.1									D6.2						D6.3						D6.4
Training and Professional Development													D3.1				D4.1				D5.1			
						L1				L2			L3							L4			L5	
Dissemination and Exploitation	WEBSITE																							
							U1			V1		R1		U2					U3	V2			U4	R2
P.M ¹	Kick-off meeting																							
	C.D.P. ²																							
	W.M. ³																							
	Q.P.E. ⁴																							
	Publications									J.P													J.P	
Secondments									S								S							

¹Progress monitoring, ²Career development plan, ³Weekly meetings, ⁴Quarterly progress evaluation, L1-L5 (5 lectures on soft robotics at ITU), U1-U4 (updates disseminated through the SCFT and CrowdHelix), V1-V2 (2 school visit), R1- R2 (ITU robot Olympics), J.P (journal articles)

3.2 Appropriateness of the management structure and procedures, including risk management

- Bu bölümde projenin finansal ve bilimsel olarak yürütülmesi ile ilgili bilgiler verilelidir.
- Proje ile ilgili yapılacak olan toplantılardan ve sıklığından bahsedilmelidir.
- Risk tablosu yapılmalıdır.

WP	Risks	Contingency Plan
1	a) Lamination may(low-medium risk) b) Lamination may affect sensor performance (low risk)	a) TPE ... b)
3	Linear control system may not be sufficient	A more advanced control strategy

3.3 Appropriateness of the institutional environment (infrastructure)

ITU is a leading state university in Turkey with approximately 32,000 students. ITU has currently a wealth of EU-funded research projects and has more than 130 international partnership agreements and is a member of various international networks. **ITU's European Union Centre Research Office** has extensive knowledge and experience on EU Framework Programmes and offers: 1) Information about EU Framework Programs and other EU Programs to the academic staff by giving seminars and workshops,

TTO-ITUNOVA protects IPR and secures university's interests in all agreements for non-disclosure, partnership, and collaboration,

ITU has a **Public Relations and Communications Office** dedicated to help academics and researchers to publish research news releases at University main website as well as to national and international news agencies. **Textile Engineering department** at ITU has **state-of-art textile machineries and test equipment** (computerized knitting machines, tensile testing machines, sewing machines and physical textile testing lab, to conduct the research from the manufacturing side of the TSAs and soft robotic glove in relation WP1 and WP2. <https://tekstil.itu.edu.tr/en/homepage>)

Yardımlar alın!!!



Proje yazım kontrolü ve sürekli destek



Proje ön değerlendirme desteği ve sürekli destek



Konu ile ilgili arkadaşlar

Genel değerlendirme ve Tavsiyeler

- Proje çağrısı açılmadan proje fikriniz olsun.
- Çok yüksek puan almak gerekiyor. 92>
- Çoğu bölümün yazımı standart hale gelmiş
- **Proje konusunun orijinalliği** çok çok önemli
- Size **kazandıracığı deneyimi anlatmanız** çok çok önemli
- Supervizörler sizinle aynı alandan olmayabilir.
- Secondment koymak başarı şansınızı arttırır.
- Sisteme yüklemek için son günü beklemeyin.
- Tam puan almayı hedefleyin!

Hakem yorumlari

Evaluation Summary Report

Evaluation Result

Total score: 94.60% (Threshold: 70/100.00)

Form information

SCORING

Scores must be in the range 0-5.

Interpretation of the score:

- 0– The **proposal fails to address the criterion** or cannot be assessed due to missing or incomplete information.*
- 1– **Poor.** The criterion is inadequately addressed, or there are serious inherent weaknesses.*
- 2– **Fair.** The proposal broadly addresses the criterion, but there are significant weaknesses.*
- 3– **Good.** The proposal addresses the criterion well, but a number of shortcomings are present.*
- 4– **Very good.** The proposal addresses the criterion very well, but a small number of shortcomings are present.*
- 5– **Excellent.** The proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.*

Criterion 1 - Excellence

Score: **5.00** (Threshold: 0/5.00 , Weight: 50.00%)

- **Quality and credibility of the research/innovation project; level of novelty, appropriate consideration of inter/multidisciplinary and gender aspects**
- **Quality and appropriateness of the training and of the two way transfer of knowledge between the researcher and the host**
- **Quality of the supervision and of the integration in the team/institution**
- **Potential of the researcher to reach or re-enforce professional maturity/independence during the fellowship**

Strengths

- *The research topic and methodology are clearly presented with sufficient level of detail, and they entail a significant level of innovation, advancing over the state of the art. The proposal presents a multidisciplinary approach.*
- *There is appropriate equal gender representation in the tests.*

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- *The proposal evidences a very relevant customised training for the researcher to enhance their actual skills. The host and the researcher have complementary competences. The measures for the transfer of knowledge from the host to the researcher are well described.*
- *The host group will benefit from the researcher's expertise in smart textiles and wearable electronics, and specific knowledge transfer measures are planned.*
- *The supervision team – including several renowned academics and an industrialist – has a high quality track record that is fully in line to supervise the proposed research.*
- *The proposal describes a convincing integration of the researcher in a strong and qualified team at the host institution. The hosting arrangements cover well both scientific and personal integration and are extended also to the secondment environments.*
- *The researcher has already achieved professional maturity and independence, which will be further strengthened through the project, with the capacity to re-enforce their professional position as a scientist in a University.*

Weaknesses

None

Criterion 2 - Impact

Score: **4.50** (Threshold: 0/5.00 , Weight: 30.00%)

- Enhancing the future career prospects of the researcher after the fellowship
- Quality of the proposed measures to exploit and disseminate the project results
- Quality of the proposed measures to communicate the project activities to different target audiences

Strengths

- The grant is expected to facilitate the researcher's career by acquiring new scientific skills and experimental knowledge and attract further research grants to build a team. The current fields of expertise of the researcher will be broadened and links will be established with key industries in the sector.
- The potential of building an own start-up company is seriously considered.
- IP rights between the researcher and the participating organisation are appropriately planned to be regulated during the project, through a detailed partnership agreement.
- Scientific publications and several other dissemination actions are planned in detail (indicating how many, to which journals, etc.), promising high diffusion and impact on several target audiences.
- There is a comprehensive list of actions to communicate the project actions and results to several target audiences by means of a website, workshops, social media and academic sessions; the actions are shown on the Gantt chart.

Weaknesses

- It is not clear how the plans for a start-up are combined with the primary aim of the researcher to follow an academic career.
- The plans to transfer know-how and potential patents to industry as well as exploitation paths are not clear. Not enough emphasis is given to patents, which are very relevant to the specific research.

Criterion 3 - implementation

Score: **4.40** (Threshold: 0/5.00 , Weight: 20.00%)

- **Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources**
- **Appropriateness of the management structure and procedures, including risk management**
- **Appropriateness of the institutional environment (infrastructure)**

Strengths

- *The work plan is clear and concise, including a clear Gantt chart (with major and minor deliverables and milestones) and appropriate allocation of tasks, time plan and resources.*
- *The management plan is appropriate and detailed, including risk management during the project.*
- *The preliminary recognised risks are real and the associated mitigation strategies are convincing.*
- *All the required infrastructure is available to the researcher, either at the host Institute or through the two secondments.*

Weaknesses

- *Both pilot studies are planned with only a limited number of users and only with healthy subjects; thus, the prototype robotic glove assessment will not be fully assessed.*
- *Operational and behavioural risks (i.e. user comfort, acceptance or usability) are not well considered.*

Dinlediğiniz için teşekkür ediyorum!