

SAST System is a Trademark of Jerbera Ltd. Co.



Inspired by Nature

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Contact Name : Ahmet Ay

Co Founders : Mustafa Kürşat AY - Ahmet Ay

Founded : Jerbera Ltd. Co. - 2006 | SAST System - 2017

Business Description : Research, develop, design, manufacture and market of Self Aligning Solar Tracking (SAST) System. Our product creating infrastructure for both photovoltaic (PV) and solar thermal (ST). Our targeted segments are solar energy engineering and design firms as well as Solar Power Plant Companies

Product / Market Fit : Our beachhead segment are companies in the Aegean Region were selected to provide design and engineering services to individual customers and solutions to their energy needs. By using our product, the efficiency 40% and customer satisfaction will be increased.

Business Model : The parts will be outsourced to the side industry for manufacturing. It will be assembled at our facilities. The price will be \$3.000 per SAST system. We will use direct sale methods.

Pain : Natural resources are running out as energy needs increase all over the world. Excessive use of fossil fuels causes climate changes. Common solar tracking systems have disadvantages like efficiency rate 10-25%. Common solar tracking systems need motor, sensor, computer & software and also maintenance (once in 3 months and once in 5 years). I consumes electric energy 8-12%. Concentrated photovoltaic solar cells need sun tracking system also.

Solution : SAST System need no motor,sensor,software etc. Our system consumes no electric energy. It could produced even if in less developed countries. Efficiency rate is %40. In addition to electric energy, it also provides a possible infrastructure for obtaining thermal energy.

Team Members : Ahmet Ay / Team Leader **BS** : METU | Mech. Eng. - 1976 **MS** : Dokuz Eylül Uni. | Production - 1981
 Mustafa Kursat AY **BS** : Istanbul Bilgi Uni. | Bus. Adm. - 2006
 Ziya Haktan Karadeniz **BS** : Dokuz Eylül Uni. | Mech. Eng.- 2002 **MS** : Dokuz Eylül Uni. | Energy - 2005
PhD : Dokuz Eylül Uni. | Energy - 2011

Management : Ahmet AY is the owner of patent. He undertook R&D and Customer Relationship. Mustafa Kursat Ay undertook design and marketing activities. Ziya Haktan KARADENIZ continues to work as an academician at the Izmir Katip Celebi Uni. He undertook R&D.

Patent Number : 2012/01659

Technology / Know How : With the effect of sunlight, the pressure increases in the thin tube which are surrounded by a glass shell to obtain green house effect . The fluidic muscle swell to sorten the size. The panel on the spherical shaft is directed to the sun which is SAST System.

Competition : Even though, a large number of solar tracking sytems produced at diffrent countries. They all have components such as motor, computer, sensors and software etc. They don't sale tracking system alone.

Funding Stage : Early stage

Competitors/ The criteria	CT Systems	Fixed angel PV	ST System	SAST System
Production	Electricity	Electricity	Hot water	Electricity+ Hot water
Efficiency	25-40%	10-20%	50-70%	E 40%+ HW 50%
Maintenance cost	8%	2%	5%	1%
Energy consumption	12%	0%	0%	0%
Investment Cost	80-100%	40-50%	30-50%	60%
Operational Cost	10%	0%	0%	0%

	Number of Panel	Cost Of Panel	Cost of SAST system	Total Cost	Capacity of panel kW	Efficiency	Total Capacity
Panels with Fixed Angle	16	\$830	-	\$13.280	250	1	4000
Panels with SAST system	12	\$830	\$3.000	\$12.960	250	1,4	4200

It is possible for herd grazing because PV and ST are on the pillars. The sunflower has no motor. SAST system Also...

