

Live Search  
Get Your Answers Instantly!

SPIN

Chicago

Chicago Maps

Your Search

Hi Guest, Sign Up | Sign In Saved Article(s)

ePaper | Headlines | Archives

# THE TIMES OF INDIA

# Health/Science

Times of India  Search

Advanced Search

Home Cities India Indians Abroad World Business Sports Health/Science Infotech Education Opinion Entertainment Classifieds

I GRADUATED IN:

classmates.com

AL	AK	AZ	AR	CA	CO	CT	DE	DC	FL	GA	HI	ID	IL	IN	IA	KS
KY	LA	ME	MD	MA	MI	MN	MS	MO	MT	NE	NV	NH	NJ	NM	NY	NC
ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY

## Soon, robots with human gaze

11 Oct 2007, 1540 hrs IST, ANI

Print Save EMail Write to Editor

makaan.com  
Real  
42,756 homes to choose from...  
SEARCH NOW

LONDON: French researchers have developed virtual characters that meet a person's gaze just like another human. The software allows the characters to look at scenes and people the way humans do.

Scientists say the goal is to make humanoid robots easier to relate to.

The software developed by G rard Bailly and colleagues in the GIPSA Lab at the Institut National Polytechnique de Grenoble, France, mimics human gaze patterns.

Their characters are capable of saccades – the unconscious jerks which constantly makes our eyes dart around – tracking moving objects like humans, and fixing their gaze on the same features as humans for similar periods.

The scientists say the new software is based on a pioneering model devised in 2003 by Laurent Itti and others at the University of Southern California, Los Angeles, US, to mimic human vision.

According to the *New Scientist* magazine, the model deals with scenes in three ways: looking for 'saliency' or the most visually outstanding parts in a scene, 'pertinence' or the most important parts, and 'attention', which temporarily inhibits regions that are no longer interesting.

Bailly's team, however, added several extra mechanisms; an 'attention stack' that tries to better mimic the way humans rank interesting areas, while another module that recognises certain familiar objects, such as faces.

These allow the software to focus a character's eyes on particular scene details at relevant times, like the eyes and mouth on a face when communicating, for example.

The team made a third addition to Itti's model, as well, a 'retinal filter' that simulates the difference between peripheral vision and the high-resolution information gathered by the centre of the retina.

Bailly said the team has already tested their model in face-to-face trials where people interacted with a humanoid using the software.

"We found that the robot's gaze patterns were comparable to the ones recorded on human subjects observing the same scene," said Bailly.

He said the new attention model would be crucial for giving virtual characters human-like movements and good social skills. It would also help them act human because, by using the same vision strategy as a human, they will gather the same information a human person would from a scene, Bailly added.

"These agents should be able to analyse the scene they're they are interacting with," said Bailly.

### More Health/Science

- Expensive shoes give no mileage
- Health of adolescents declining: Study
- Firms fool shoppers with 'science'

More >>

### Other News

- Centre approves rehabilitation policy for farmers
- Now, ICICI Bank reduces interest rate on home loans
- Outgoing IIM-A head wants change in governance style
- Infosys second quarter profit up 18.4%

### Pictures Videos



Japanese professor Atsuo Takanishi unveils the new medical massage robot 'WAO-1' for patients suffering from temporomandibular (jaw joint) disorder, oral dryness and swallowing disorders in Tokyo. (AFP Photo)  
The day in pictures | Oct 8 in pics

### My Times , My Voice

- Does the relentless rise of the Sensex make you happy?
- Is it better if one party gets a clear majority?

More >>

Latest News Most Read Most Emailed Most Commented

- Russia's actions show suspicion over Iran nuclear programme: Rice ( 0601hrs )
- Argentine first lady unhurt as plane skids off runway ( 0514hrs )
- Brazil Senate chief steps down on graft scandal ( 0447hrs )
- 19 insurgents and 15 civilians killed in Iraq: US ( 0351hrs )

More >>

TATA MUTUAL FUND

### Horoscope

Libra  Go

### ePaper: Print Edition

Get the replica of your favourite edition of Times of India Feel at home..  
View ePaper

### TOI on mobile

News, Astrology, Cricket, Movies & more via 58888

More>>

Authentic & Certified Gems  
Order Now

### i-Bazaar Shop

"This research is important because it focuses on adding a social aspect [to characters]," added Christopher Peters of the University of Paris VIII, who has researched similar problems.

"But it also raises difficult questions and challenges -- such as how to model competition for visual attention between different stimuli, like multiple faces and conflicting emotions," Peters added.

[Print](#) [Save](#) [E-Mail](#) [Write to Editor](#)

**Comments to the Editor**

Be the first to write to the Editor.

**Ads by Google**

**Smarter Vehicle Tracking**

Where are your drivers right now? Navtrak shows you! Free demo.  
[www.navtrak.net](http://www.navtrak.net)

**"Diabetes Breakthrough"**

What Your Doctor Doesn't Know About Curing Diabetes! 100% Guaranteed.  
[MicroNutra.com](http://MicroNutra.com)

**Free Human Resource Guide**

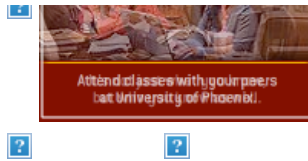
The Guidebook to Human Resources Free from Yahoo! HotJobs. No catch.  
[hotjobs.yahoo.com](http://hotjobs.yahoo.com)

Write here...

[Terms & conditions](#)

Name:  Location:

Email:



Insurance planning	Rs 499
Xbox 360 Elite	Rs 34,990
<a href="#">More &gt;&gt;</a>	

**Travel**

<b>Hotels</b>	
Goa	Rs 760
Agra	Rs 750
Jaipur	Rs 1100
<a href="#">More &gt;&gt;</a>	

**Mobile 58888**



[Sizzling Hollywood Bombshells](#)

[This Week's Top Polytones](#)

[More >>](#)

**Related Ads**

- [The Times of India](#)
- [Indiatimes Movies](#)
- [Timesofindia Indiatimes](#)
- [Epaper Indiatimes](#)
- [Economicstimes Indiatimes](#)