



UNIVERSAL NIGHT'13

episode 7

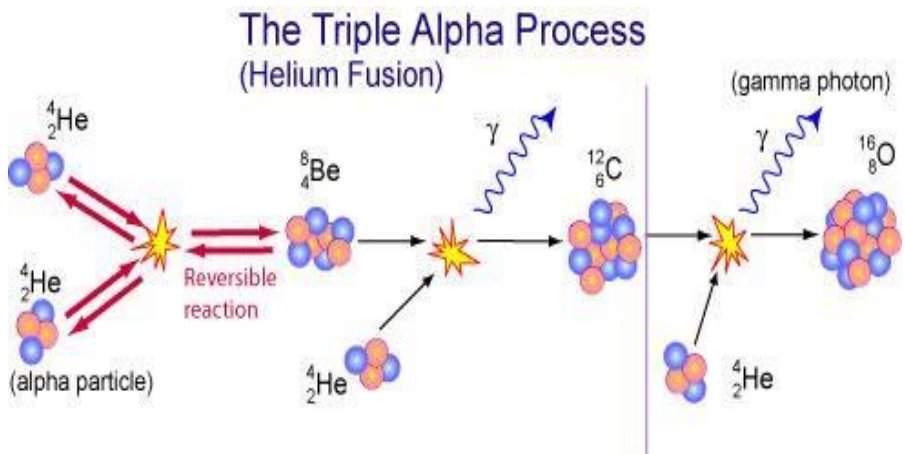
“When We Left Earth”

Astronomical Society
Dharamaraja College Kandy

With Best Compliments From.....

Old Rajan

Mr. Manoj
Pathiraja





UNIVERSAL NIGHT

episode 7

At Dharmaraja College Auditorium

1st November 2013

6:30pm onwards

Old Rajan

THUSIRA DISSANAYAKE

B.sc(hon's) Information Technology

(2008 BATCH)

The message from the Principal

It's with great pleasure that I pen these lines for the souvenir for the "UNIVERSAL NIGHT 2013". Rajans have achieved prominence in many fields including astronomy. This event is good evidence for the innovative and creative ability of Rajans. Extracurricular activities are essential to build a proud personality. The experience gained from these activities will help students to become accomplished citizens in later years who are well equipped to meet the modern world.

I would also like to wish the best of luck for these who gathered here as the competitors of the UNIVERSAL NIGHT 2013.

Mr. S.M. Keerthirathne

Principal

Dharmaraja College Kandy

With Best Compliments From.....

AJANTHA DISSANAYEKA sir

$$e^{i\pi} + 1 = 0$$

$$e^{iu} = \cos(u) + i \sin(u)$$

$$\gamma = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{2} \dots + \frac{1}{n} - \log(n) \right)$$

$$V - E + F = 2$$

$$S-I = \sum_{k=1}^p \frac{B_{2k}}{(2k)!} \left(f^{(2k-1)}(n) - f^{(2k-1)}(0) \right) + R$$

MESSAGE FROM THE MASTERS IN-CHARGE

It's a great pleasure for us to send our regards to the 'Universal Night' the most spectacular astronomical event in the Sri Lanka.

Also we are proud to guide this society which has and students who represented Sri Lanka in International Astro Olympiad completion.

We must hearly thanks the members of few Astronomical society who showed immense dedication and courage in battling with few challenging task of organizing this event. I congratulate the success you had in overcoming many obstacles we had to face.

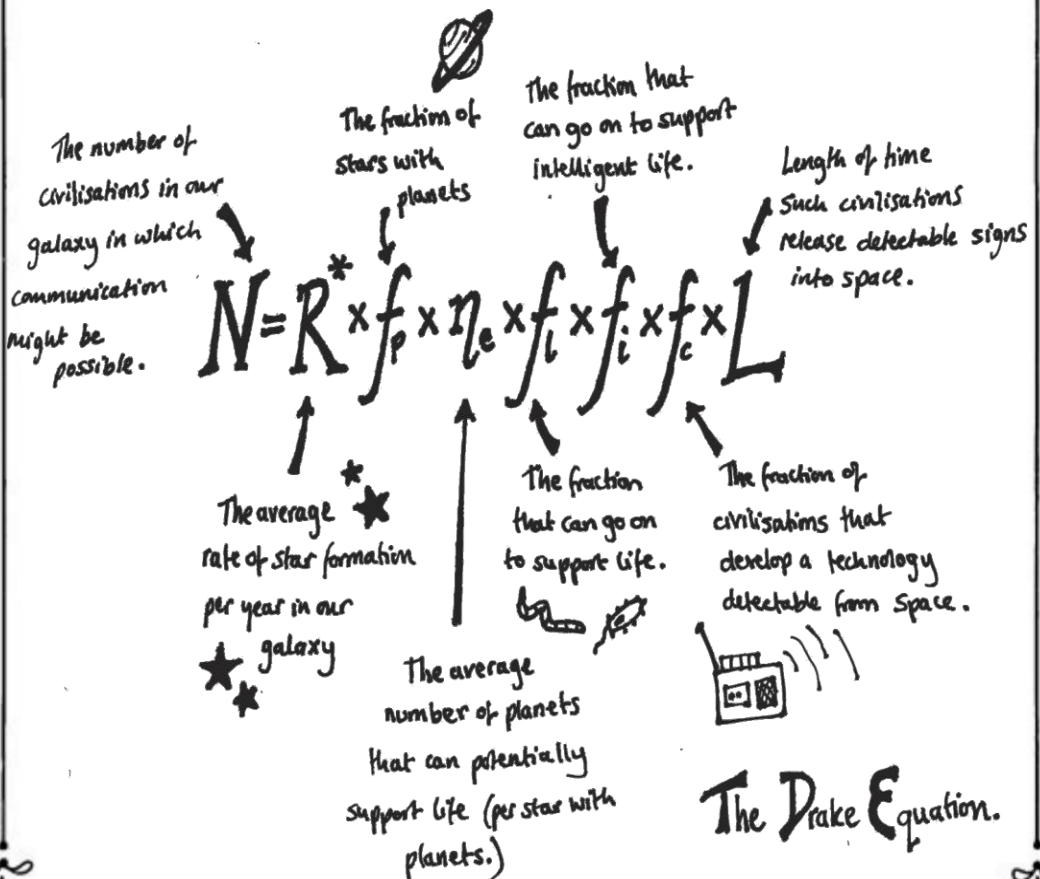
I also make this an opportunity to thank you our sponsors and well wishes.

**U.K. Pothuwila,
Lalith Premasiri
(M I C)
ASDRC**

With Best Compliments From.....

Nishshanka

Weerasekara Sir.



The Drake Equation.

MESSAGE FROM THE PRESIDENT

It's with great pleasure and enthusiasm, I release this message as the president of the Astronomical Society of Dharmaraja College and also for the consecutive 17th year we host the Astronomical night for the year 2013 which is themed as "When We Left Earth". We have also organized activities in the Astronomical Day and which have been successful during the past 16 years, we have also gained huge victories in the field of amateur astronomy.

I am ecstatic to mention that our team got this opportunity of organising this tremendous project for the year 2013. I would like to take this opportunity to thank our previous brothers of ASDRC who uplifted the standard of the society to a renowned place in Sri Lanka. This is the third time that a school organizes a multipurpose Astronomy work shop that consists of a quiz competition. Finally I would like to thank who contributed in making this event a success.

H.M.A.S. Manjitha

President

ASDRC (Year 2013/ 14)

With Best Compliments From.....

Mr. P.C.P. Punchihewa

(Pharmacist)



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11. Maliyadewa Girls' College, Kurunagala.
12. Nalanda College, Colombo.
13. Pushpadana Girls' College, Kandy
14. Ranabima Royal College, Kandy.
15. Richmond College, Galle.
16. S.W.R.D. Bandaranayake, Kurunagala.
17. Sangamitta Girls' College, Colombo.
18. Seethadevi Girls' College, Kandy
19. Sirimawo Bandaranayeka Girls' College, Colombo.
20. St. Anthony's Boys' College, Kandy.
21. St. Anthonys Girls' College, Kandy.
22. St. Sylvester's College, Kandy.
23. Swarnamali Girls' College, Kandy
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Dr.Nimal Hettiarachchi



Type Ia supernovae occur in binary systems (two stars orbiting one another) in which one of the stars is a white dwarf while the other can vary from a giant star to even a smaller white dwarf. A white dwarf is the remnant of a star that has completed its normal life cycle and has ceased nuclear fusion. However, white dwarfs of the common carbon-oxygen variety are capable of further fusion reactions that release a great deal of energy if their temperatures rise high enough. Physically, carbon-oxygen white dwarfs with a low rate of rotation are limited to below 1.38 solar masses. Beyond this, they re-ignite and in some cases trigger a supernova explosion. Somewhat confusingly, this limit is often referred to as the Chandrasekhar mass, despite being subtly different from the absolute Chandrasekhar limit where electron degeneracy pressure is unable to prevent catastrophic collapse. If a white dwarf gradually accretes mass from a binary companion, the general hypothesis is that its core will reach the ignition temperature for carbon fusion as it approaches the limit. If the white dwarf merges with another star (a very rare event), it will momentarily exceed the limit and begin to collapse, again raising its temperature past the nuclear fusion ignition point. Within a few seconds of initiation of nuclear fusion, a substantial fraction of the matter in the white dwarf undergoes a runaway reaction, releasing enough energy ($1-2 \times 10^{44}$ J) to unbind the star in a supernova explosion.

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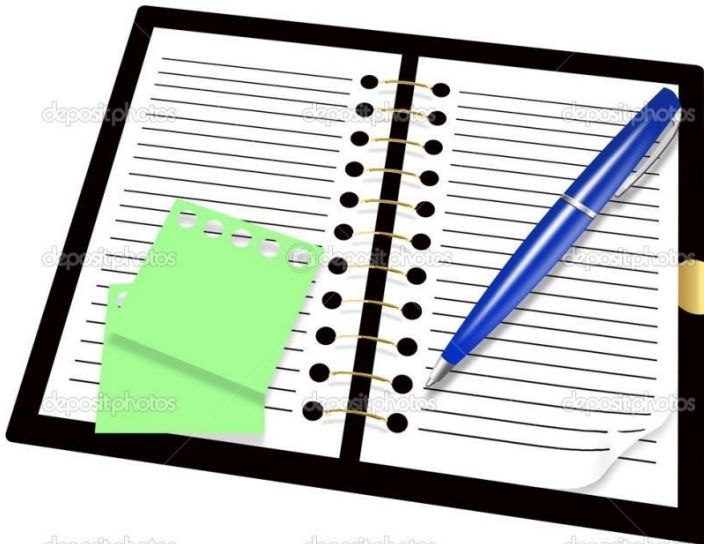
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Mr.Premakeerthi Rathnayeka

B.Sc. (HONS)

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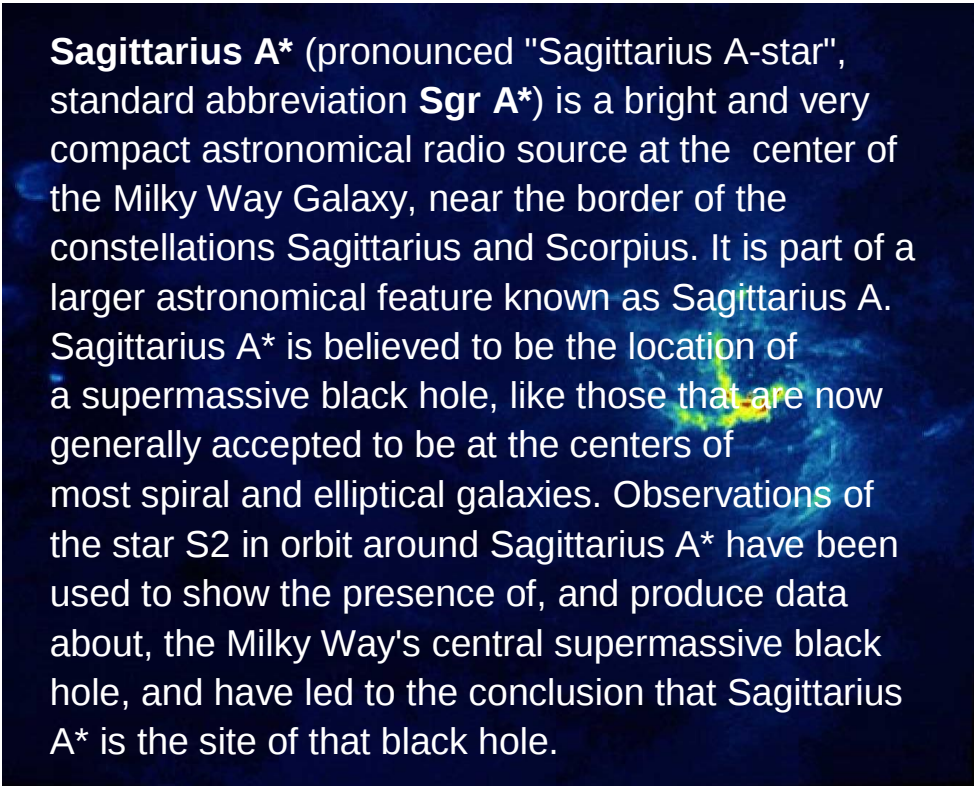
**Saggasus
Bandarawela**



With Best Compliments From.....

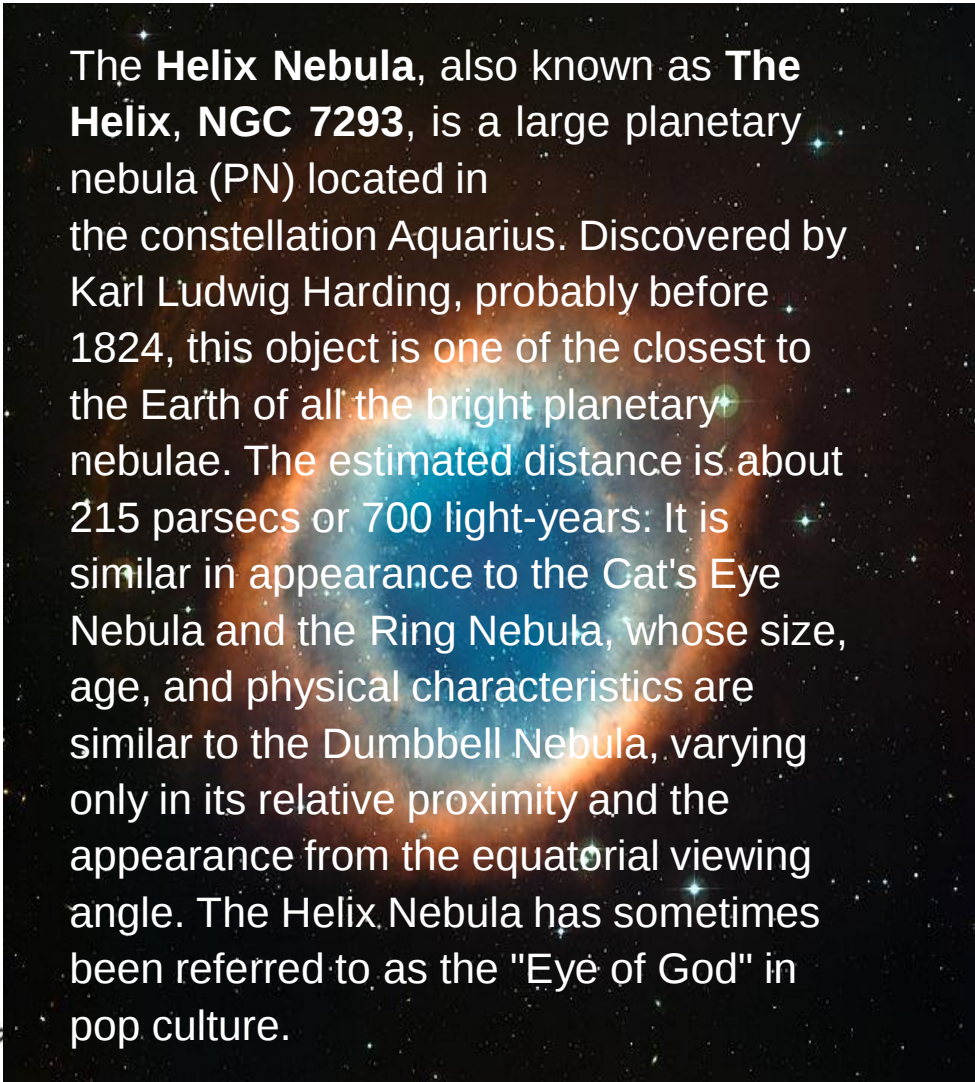
Old Rajan:

Niwandhana Bandaranayeka



Sagittarius A* (pronounced "Sagittarius A-star", standard abbreviation **Sgr A***) is a bright and very compact astronomical radio source at the center of the Milky Way Galaxy, near the border of the constellations Sagittarius and Scorpius. It is part of a larger astronomical feature known as Sagittarius A. Sagittarius A* is believed to be the location of a supermassive black hole, like those that are now generally accepted to be at the centers of most spiral and elliptical galaxies. Observations of the star S2 in orbit around Sagittarius A* have been used to show the presence of, and produce data about, the Milky Way's central supermassive black hole, and have led to the conclusion that Sagittarius A* is the site of that black hole.

With Best Compliments From.....
Sunil Rathnayake sir



The **Helix Nebula**, also known as **The Helix**, **NGC 7293**, is a large planetary nebula (PN) located in the constellation Aquarius. Discovered by Karl Ludwig Harding, probably before 1824, this object is one of the closest to the Earth of all the bright planetary nebulae. The estimated distance is about 215 parsecs or 700 light-years. It is similar in appearance to the Cat's Eye Nebula and the Ring Nebula, whose size, age, and physical characteristics are similar to the Dumbbell Nebula, varying only in its relative proximity and the appearance from the equatorial viewing angle. The Helix Nebula has sometimes been referred to as the "Eye of God" in pop culture.

With Best Compliments From.....

Wishes for

UNIVERSAL NIGHT'13

From

D.V.Medawatte

(B.Sc.Eng.(Hons) C.Eng.MIE(SL), PG(DIP), Arbitrator)

Project Director,

Greater Kurunegala Water Supply and Sewerage Project



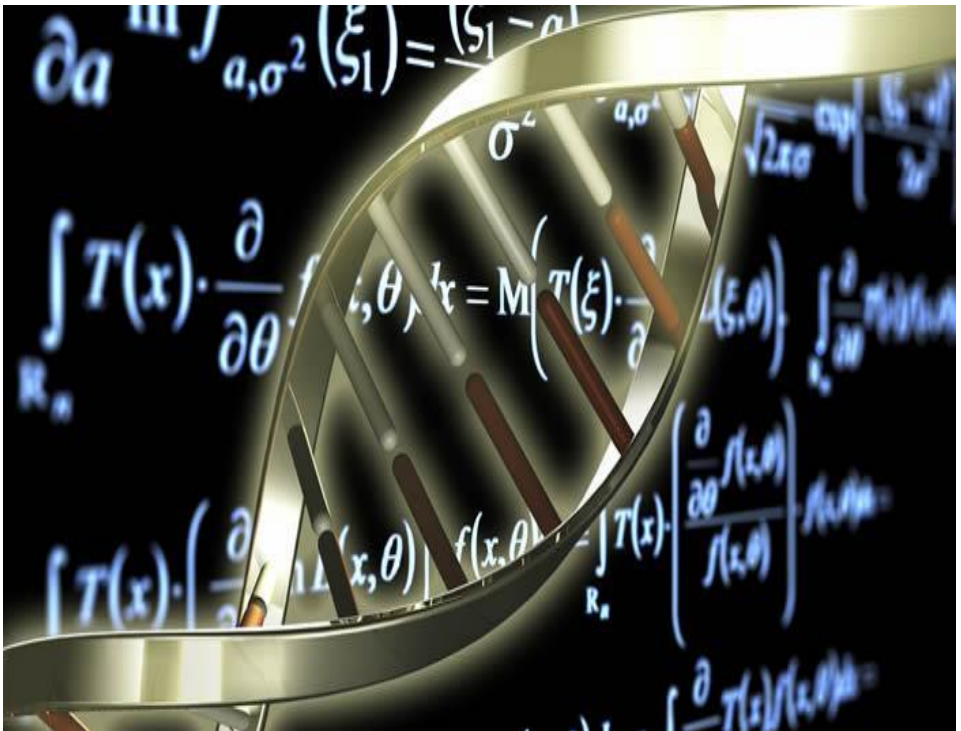
With Best Compliments From.....

Mr. LAL BANDARA

Bsc.Sp(HONS)

Biology

Princeton, Kandy



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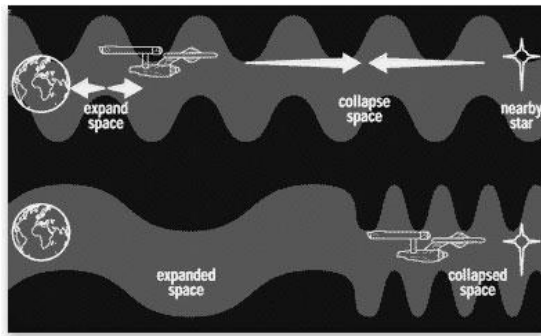
Agenda

7.00pm	Event Starting
7.05 pm	Lighting the oil lamp
7.15pm	Observing pansil
7:20pm	Welcome speech by the president
7:25pm	Intro video
7:30pm	Principal's speech
7:45pm	Science sectional head's speech
7:50pm	Cheif guest's speech and lecture 01
9:20pm	Dinner
10:00pm	Astro Olympiad Quiz Contest and worksop
1:00am	Entertainment item 01
1:10am	Observation
3:10am	Entertainment item 02
3:15am	Lecture 02
4:15am	Refreshment
4:30am	Quiz final
5:15am	Entertainment item 03
5:30am	Award ceremony
5:55am	Vote of thanks
6:00am	National anthemn and end of the event

With Best Compliments From.....

A well wisher

Warp drive



Warp drive is a hypothetical faster-than-light (FTL) propulsion system in the setting of many science fiction works, most notably Star Trek. A spacecraft equipped with a warp drive may travel at apparent speeds greater than that of light by many orders of magnitude, while circumventing the relativistic problem of time dilation. In contrast to many other fictional FTL technologies, such as a "jump drive" or the Infinite Improbability Drive, the warp drive does not permit instantaneous travel between two points; instead, warp drive technology creates an artificial "bubble" of normal space-time that surrounds the spacecraft (as opposed to entering a separate realm or dimension like hyperspace). NASA scientists have begun preliminary research on such technology

LEGACY OF A S D R C

Year	President	Secretary
2000	Sameera Perera	D. Rathnasinghe
2001	A. Nanayakkara	Y.L. Gunearachchi
2002	M.C. Kondasinghe	T. Wanniarachchi
2003	C.H. Windanapathirana	N.S. Bandara
2004	A. A. Wickramanayake	A. V. Thilakarathne
2005	A.U. Abeyrathne	K. C. Rambukwalla
2006	Chamitha Rathnayake	Aravinda Wettewe
2007	Janith M. Wanigasekara	S.Basnayake
2008	Danula S. Godagama	G. Wanigasekara
2009	Venika Jayasundara	Niranga Perera
2010	Venika Jayasundara	Niranga Perera
2011	Lakmal Meegahapola	A. Amarathunge
2012	Anushka Iddamalgoda	Geeth Wimalasiri
2013	Akhitha Manjitha	Janith Weerakkody

The founder of this society Mr. Menon Rajakrishna.

The present Masters in charge are, **Mr. U.K. Pothuwila, Mr. Lalith Premasiri.**

Now we can look at the victory list of ASDRC since 2002. However, It's not completed due to some missing stationary including non-received certificates.

- First place at the all island inter school quiz competition organized by the St. Anthony's College, Kandy. (2002)
- Second place at the all island inter school quiz competition organized by the Mahamaya Girls' College, Kandy. (2002)
- First place at the all island inter school quiz competition organized by the Ranabima Royal College, Gannoruwa. (2002)
- First place at the all island inter school quiz competition organized by the Vishaka Girls' College Colombo. (2002)
- First place at the all island inter school quiz competition organized by the St. Anthony's College, Kandy (2003)
- First place at the all island inter school quiz competition organized by the St. Sylvester's College, Kandy. (2003)
- First place at the all island inter school quiz competition organized by the Vishaka Girls' College, Colombo. (2003)
- First place at the all island inter school quiz competition organized by the Vidyarthi College, Kandy. (2003)
- First place at the all island inter school quiz competition organized by the Kingswood College, Kandy. (2003)
- Third place at the all island inter school quiz competition organized by the Ananda College, Colombo. (2003)
- First place at the all island inter school quiz competition organized by the Kingswood College, Kandy. (2004)
- First place at the all island inter school quiz competition organized by the Mahamaya Girls' College, Kandy. (2004)
- Second place at the all island inter school quiz competition organized by the Vishaka Girls' College, Colombo. (2004)
- First place at the all island inter school quiz competition organized by the Mahamaya Girls' College, Kandy. (2005)
- First place at the all island inter school quiz competition organized by the Nalanda College, Colombo. (2005)
- First place at the all island inter school quiz competition organized by the St. Anthony's College, Kandy. (2005)

- First place at the all island inter school quiz competition organized by the Rocket & space Sciences Society. (2005)
- First place at the all island inter school quiz competition organized by the Pushpadana College, Kandy. (2005)
- First place at the all island inter school quiz competition organized by the Kingswood College, Kandy. (2006)
- Second place at the all island inter school quiz competition organized by the Ranabima Royal College and Girls' High School School, Kandy. (2006)
- First place at the all island inter school quiz competition organized by the Nalanda College, Colombo. (2006)
- First place at the all island inter school quiz competition organized by the Pushpadana College, Kandy. (2006)
- Second place at the all island inter school quiz competition organized by the Ananda College, Colombo. (2006)
- First place at the all island inter school quiz competition organized by the St. Anthony's College, Kandy. (2006)
- First place at the all island inter school quiz competition organized by the Rocket & Space Science Society. (2006)
- Second place at the all island inter school quiz competition organized by the St. Sylvester's College, Kandy. (2006)
- Second place at the all island inter school quiz competition organized by the Maliyadewa Girls' College, Kandy. (2007)
- First place at the all island inter school quiz competition organized by the Mahamaya Girls' College, Kandy. (2007)
- First place at the all island inter school quiz competition organized by the St. Sylvester's College, Kandy. (2007)
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- First place at the all island inter school quiz competition organized by the Girls' High School, Kandy. (2008)
- First place at the all island inter school quiz competition organized by the Trinity College, Kandy. (2008)
- First place at the all island inter school quiz competition organized by the Maliyadeva Girls' College, Kurunegala. (2008)

- First place at the all island inter school quiz competition organized by the Ranabima Royal College, Kandy. (2008)
- First place at the all island inter school quiz competition organized by the Girls' High School Kandy. (2009)
- Second place at the all island inter school quiz competition organized by the Ranabima Royal College, Kandy. (2010)
- Second place at the all island inter school quiz competition organized by the St. Anthony's Boys' College, Kandy. (2010)
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- First place at the all island inter school quiz competition organized by the Vidyartha College, Kandy. (2011)
- First place at the all island inter school quiz competition organized by the Trinity College, Kandy. (2012)
- Third place at the all island inter school quiz competition organized by the Girls' High School, Kandy. (2012)
- Second place at the all island inter school quiz competition organized by the Kingswood College, Kandy. (2012)
- First at the all island inter school quiz competition organized by the by the St. Anthony's College, Kandy. (2013)
- First place at the all island inter school quiz competition organized by the Girls' High School, Kandy. (2013)
- Semi-Final Competitors at the **Star Quest** at the all island inter school quiz competition organized by the University of Colombo. (2013)
- Third place at the all island inter school quiz competition organized by Trinity College, Kandy. (2013)
- Third place at the all island inter school quiz competition organized by St Sylvester's College, Kandy (2013)

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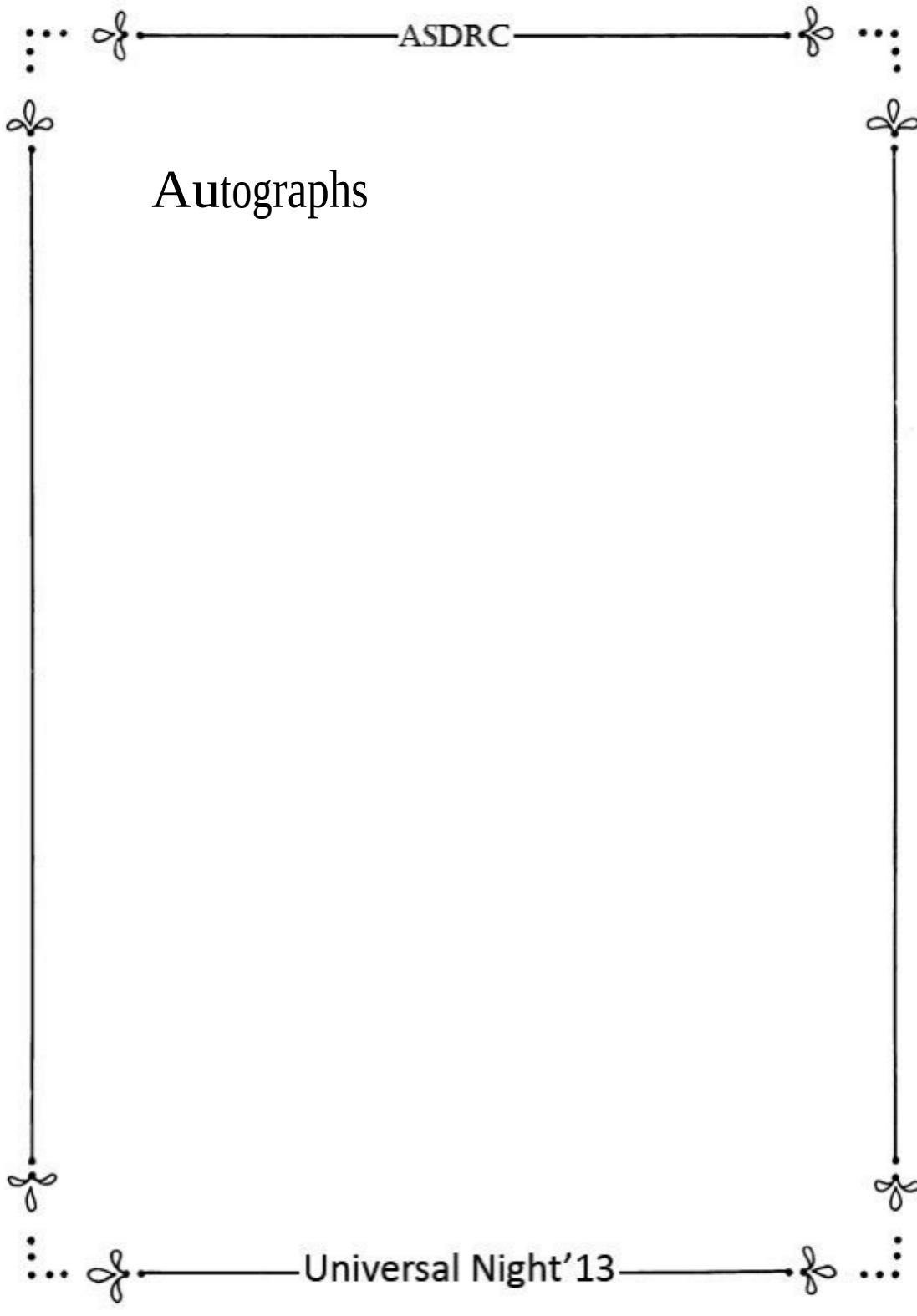
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Acknowledgements

- ✓ Our honourable chief guest Dr. Pantalian Perera
- ✓ Our Principal Mr.S.M.Keerthirathne
- ✓ The sectional head of Dharmaraja College
Science Section Mr. S.U.B. Ekanayeka
- ✓ Our masters in charge Mr. Lalith Premasiri and
Mr. U.K. Pothuwila
- ✓ The staff of Dharmaraja College Science Section
- ✓ The past members of ASDRC
- ✓ The members of FASE
- ✓ The undergraduates of University of Peradeniya
- ✓ The members of Society for Information
Communication Technology of Dharmaraja
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