Young Tinker FOUNDATION

ANNUAL REPORT

2022-23

MESSAGE FROM FOUNDERS

As we reflect on the past year, we are filled with immense gratitude and a deep sense of purpose. What began as a simple desire to ignite curiosity and creativity in young minds has grown into a movement of change-makers, thinkers, and doers. This year has been a testament to the power of belief—belief in the potential of students, in the strength of hands-on learning, and in the collective spirit of a community that dares to dream big.

We've seen students explore science and technology not as subjects in textbooks, but as tools to shape the world around them. We've seen educators transform into facilitators of innovation. We've been moved by every curious question, every moment of discovery, and every spark of joy we witnessed—whether during a session, a workshop, or even a simple conversation.

Our mission has always been rooted in empowerment—giving young people the confidence to tinker, to fail, to try again, and ultimately, to build. As we turn the page on another chapter, we carry forward the lessons learned, the lives touched, and the dreams shared.

We extend our heartfelt thanks to every student, parent, mentor, partner, and supporter who walked alongside us this year. The journey ahead is long, but with your continued trust and energy, we are more inspired than ever to keep pushing boundaries.

Mr. Anil Pradhan

CEO, Founder

Mrs. Vaishali Sharma

COO, Co-Founder

ADVISORY COUNCIL

Shri Arun Jain
Advisor, Young Tinker Foundation |
Managing Director, Intellect
Design Arena

Shri Yogesh Andlay
Advisor, Young Tinker Foundation |
Managing Director, Nucleus
Software Engineers (P) Ltd.

ABOUT THE ORGANIZATION

Our organization was founded with a simple yet powerful mission: to ignite curiosity and empower young minds through hands-on learning in science, technology, engineering, and design. At the heart of our work is the belief that every child—regardless of background or geography—deserves access to quality STEM education that goes beyond textbooks.

We design immersive learning experiences that encourage students to think critically, solve real-world problems, and explore the world through the lens of innovation. By fostering a mindset of experimentation and resilience, we aim to nurture a generation of creators, leaders, and changemakers.

Our programs are built on collaboration—with educators, communities, and partners who share our vision of reimagining education. Through a blend of workshops, tinkering activities, mentorship, and grassroots outreach, we strive to create inclusive spaces where young learners feel seen, heard, and inspired to build a better future.

Every initiative we undertake is guided by our core values: curiosity, creativity, courage, and community. These values drive us to continually evolve, to learn from our journey, and to remain committed to building an ecosystem where learning is joyful, relevant, and empowering.

YOUNG TINKER SPACE

This year marks an exciting new chapter in our journey with the introduction of the Young Tinker Space—a dedicated physical space within schools and communities designed to spark creativity, hands-on exploration, and innovation.

A Young Tinker Space is a hands-on creative space where you can explore ideas, use tools, and build prototypes. It's a place for learning by doing, solving challenges, and turning your ideas into reality through a year-long curriculum.

A typical tinker space includes:

- Hand tools (for carpentry, agriculture, plumbing, electrical, and electronics),
- a tinkering station (includes 3D Printers, basic electronics fabrication facility),
- a Resource center (computers),
- Tool organizers,
- Power and internet,
- Softwares, and
- Other Rapid Prototyping Tools.

IMPACT SIZE

02 Young Tinker Spaces

State Location	Schools/ Colleges	Type of Program	Students impacted
Odisha Cuttack	2	YTS	25

NASA Human Exploration Rover Challenge Impact Size

06
Students selected for the Young Tinker team

234
hours/student engagement

5,340
Students impacted through STEM Engagement

NASA HUMAN EXPLORATION ROVER CHALLENGE

In 2023, a team of young innovators from the Young Tinker Foundation received a ‘Category Award’ at NASA’s prestigious Human Exploration Rover Challenge (HERC) held in Huntsville, Alabama, USA. The challenge required students to design, build, and race a human-powered rover capable of navigating simulated lunar terrain.

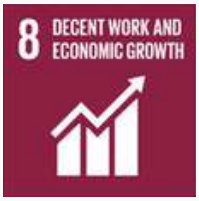
They designed and built a functioning rover from scratch, competing alongside top international universities. Their success was powered by teamwork, creativity, and strong problem-solving skills. The team comprised students from Odisha, Andhra Pradesh, Maharastra, remote villages, and orphanages.

This achievement reflects the essence of the Young Tinker mission—empowering students through hands-on STEM education, mentorship, and the belief that great innovation can come from anywhere.

Young Tinker Pedagogy aligns with several Sustainable Development Goals (SDGs)

provides students with hands-on learning experiences in STEM, enhancing their skills and knowledge

equal focus on all the gender, hence promoting gender diversity in STEM fields



fosters innovation and technical skills, Young Tinker prepares students for future careers, contributing to economic growth

encourages the development of innovative technologies and infrastructure, crucial for sustainable industrial practices

partner with corporates for funding and engage with schools and communities for STEM activities, promoting collaboration

STORIES OF CHANGE

Village to NASA

Basudeba Bhoi - A 15-year-old from Baral village, 42Mouza, Cuttack. He is a son of daily labour in paddy fields. He joined Young Tinker Educational Foundation in 2015, at that time he used to work with his father in farmland to have better earnings for his whole family. Now, Basudeba is a specialist in 3D printing technology. He has innovated a bionic hand (artificial hand) through open-source material and facilities at our organization. With his project, he wants to give hope to people with disabilities. He aims to become a scientist in ISRO and wants to bring glory to his country.

Om Padhi - His mother left his father's house when he was 2 years old as a result of some family strife, and his father likewise had no interest in looking after Om. His mother found it even more challenging to balance the costs of his education with her own means of support. He then started staying in a children home, in Bhubaneswar. He completed 10th grade and is currently enrolled for 10+2 Science program. After completing the interview, he is now a part of the NASA HERC 2023 team.

STORIES OF CHANGE

Chasing Dreams, Crossing Continents

SAI AKSHARA VEMURI
UnderGrad, Mechanical Engineering, Georgia Tech

From Vijayawada, Andhra Pradesh, her hobbies include reading books and listening to music. She is a Hatrick World Record Holder for reciting the highest number of decimal places of root 2 value in the fastest time and have received an appreciation letter from the Vice President of India. She is a national archer. She has started various clubs like "The Astro Club", President of Rotary Interact club.

SIDDHANTH GHOSH
UnderGrad, Aerospace Engineering, Purdue University

Siddhanth Ghosh, a dynamic 18-year-old IB student from Mumbai, embodies a passion for technology, evident in his diverse interests from computer science to music production. Young Tinker honed Siddhanth's hands-on skills, fostering his creativity in Computer Aided Design and Rapid prototyping, leading to the successful creation of many international acclaimed projects.

CHITTINENI AKARSH
Enrichment Program at Columbia Business School

10th Grader from Vijayawada, Andhra Pradesh. His hobbies include playing badminton, reading books. He is also involved in organizing teams of various workshops. He is passionate about Science and related subjects, so he has started different clubs related to the field of STEM learning. He is also a national level badmiton player.

PARTNERS

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NMDC

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AWARDS & ACHIEVEMENTS

Co-founder Vaishali Sharma is the Winner at Science Engagement category at Falling Walls Engage, Berlin, Germany

one + Deloitte.

OYW Deloitte SDG4 Quality Education Scholar Awardee

Er Anil Pradhan
Founder-CEO, Young Tinker Foundation

Founder - Anil Pradhan is the 1 out of 5 scholars awarded by Deloitte in the SDG4 Education Scholar Award in One Young World, Manchester, UK

MEDIA RELEASES

Printed from
THE TIMES OF INDIA

Six teenagers train in state to take part in NASA's Rover Challenge in US

TNN | Jan 15, 2023, 05.34 AM IST

BHUBANESWAR: Come April and six wizkids from across India will undertake a journey to NASA's space & rocket center in Huntsville, Alabama, to showcase a rover vehicle they have designed in a global competition.

The students, all aged between 14 and 18 years will take part in NASA's Human Exploration Rover Challenge (HERC), officials said. NASA has selected 61 teams for the competition from 45 colleges and universities and 16 high schools from 30 countries around the world.

The 2023 competition will be held from April 20 to 22. Mentored by Odisha-based Young Tinker Educational Foundation, these children hailing from various socio-economic background belongs to different parts of India. While Basudeba Bhoi, 14, is from Cuttack, Akankshya Dash, 17, and Om Padhi, 16 are from Bhubaneswar. Siddhanth Ghosh, 18 from Mumbai, Sai Akshara Vemuri, 17 and Akarsh Chittineni, 14 from Vijayawada complete the team.

This six member students' team had sent a proposal to NASA in October last year and after getting the intimation for competition, they are presently working on designing, testing and manufacturing of the human-powered rover vehicle.

"This is one-of-a-kind opportunity and I am feeling very proud to represent my country on such a big platform. We have worked very hard. Our design is almost ready now and we are confident of winning this time," Basudev Bhoi, one of the team members from Odisha said.

"I am feeling incredibly grateful to be a part of this team. I enjoyed working with them. Our team spirit is high, and we have got really good mentorship. Visiting the facility of NASA in the USA is a great chance of getting international exposure," Om Padhi, another member of the team said.

Founder of the Young Tinker Educational Foundation and mentor of the team, Anil Pradhan said their students had participated in the competition for the first time in 2022 and won the third prize. "Our students are working very hard, and we will put all our efforts in place to grab the first prize in the competition this time," he said.

Co-founder of the foundation and another mentor, Vaishali Sharma said the HERC is one of eight Artemis Student Challenges that reflects the goals of NASA's Artemis programme, which seeks to put the first woman and person of colour on the moon.

THE NEW SUNDAY EXPRESS | BRIGHTSIDE

02 VIJAYAWADA SUNDAY 15.01.2023

AP teens' celestial zeal buys them ticket to NASA

The duo have been selected to compete in rover challenge

K KALYAN KRISHNA KUMAR

Adding another feather to the cap of Andhra Pradesh, a 17-year-old Sai Akshara Vemuri and 15-year-old Akarsh Chittineni were selected to compete in NASA's Human Exploration Rover Challenge (HERC) 2023 to be held by Young Tinker Educational Foundation, Odisha.

With the noble concept of mechanising a rover that can move on the surface of Moon and Mars, these two young girls have kept themselves busy with the task of developing a multi purpose vehicle to carry out the unimaginable tasks.

Each year, NASA's HERC features an engineering design challenge to engage students worldwide in the next phase of human space exploration. NASA has announced the 61 teams, who got selected across the globe to compete in the HERC 2023.

Sai Akshara Vemuri, daughter of the couple, VVV Gopala and Sujana Sri, who runs an educational institute under the name EDUCARE in Vijayawada, is now studying 12th standard at Delhi Public School in Vijayawada.

Meanwhile, Akarsh is the son of Vijay Mohan Chittineni, a software engineer and his mother Prasanthi Dandamudi is working as an executive manager at Effitronics systems Pvt. Ltd, Vijayawada. Akarsh is studying 10th standard at KCP Residential Public School in Vijayawada.

These two students of Andhra Pradesh were selected in Under 19 category, by the Young Tinker Educational Foundation of Bhubaneshwar, Odisha along with another four across the country for this challenge, including of them 14-year-old Basudeba Bhoi of Cuttack, a 17-year-old Akankshya Dash and 16-year-old Om Padhi from Aduita Children Home, Odisha and 18-year-old Siddhanth Ghosh of Maharashtra. The team will be designing, assembling, fabricating, testing and manufacturing a human-powered Rover that can traverse the surface of Mars and the Moon.

As part of the STEM engagement programme, both the students have conducted several sessions of Science, Technology, Engineering, and Mathematics (STEM) to encourage younger students in Andhra Pradesh including ZPH School students of Ungiturru, Krishna District, Urdu School of Paroos Nagar, Municipal High School of Patamata Lanka and Neighbourhood Communities of Vijayawada. Through these sessions around 3,500+ students have been impacted till now and continuing the same with a target of 10,000 by April 2023.

These students sent a proposal to the NASA HERC team and were invited on October 6, 2022. Ever since the team has been working on the designing, material testing, and manufacturing of the human-powered rover vehicle. This team will be travelling to the USA in April 2023 to represent India after shipping the rover manufactured by them to the USA.

Speaking to TNIE, Akshara who is also an archer said, "I am the student team safety officer in this project. During the competition, while the rover is traversing various terrains, I have to predict many failure methods and also come up with solutions to overcome them."

"I along with Akshara, came to Bhubaneshwar to contribute to the manufacturing process of the rover. I as a tech lead was assigned to do work related to the materials such as identifying the manufacturer and procuring the material etc. Our mentors have given us an ample amount of support in our learning process" Akarsh told TNIE.

MEDIA RELEASES

FROM 42 MOUZA TO NASA

An Odisha non-profit has assembled a team of school students including orphans and children of daily-wagers to build a rover for moon exploration. They have been selected to join NASA's rover challenge.

by B Radhika

Banishta Bhoi balances everyday school work with building a human exploration rover capable of traversing on the [illegible] and dusty terrain of the moon. [illegible], 14, is from Barsi village of 42 Mouza in Cuttack, Odisha, where his parents are daily-wage farm labourers.

After teaching himself 3D printing technology and innovating a bionic hand with open source material, Bhoi is now working on his next passion – space exploration.

He and six other school students are building a rover for the National Aeronautics and Space Administration's (NASA) annual Human Exploration Rover Challenge (HERC) 2023. Bhoi's team is part of a non-profit called Young Tinker Educational Foundation that educates school children about STEAM (science, technology, engineering, arts and mathematics) disciplines. All members have been part of the foundation's sunday tinkering programmes.

"As a kid, I was always interested in astronomy and science fiction and the idea of discovering new worlds and space exploration really appealed to me. When I came to know about HERC 2021, I started researching the rover challenge. Now that our team has been selected, I will work hard and give my 100 percent effort in the challenge," said Bhoi.

The NASA HERC features a global engineering design challenge every year for school and college students. The event – "a more complex follow up to the successful NASA's Great Moonbuggy Race," says American Institute of Aeronautics and Astronautics – aligns with NASA's mission to explore the lunar surface with the help of a roving vehicle.

The team sent a proposal to NASA HERC and was shortlisted to participate in October last year. Since then, the team has been designing, testing materials, and manufacturing a "human-powered rover vehicle" that can function on extra terrestrial terrain. The team is one of 61 teams from 30 countries that will travel to Alabama, US in April. The rover will be shipped to NASA's Marshall Space Flight Center first.

The team

Anil Pradhan, 31 and the founder of the Young Tinker Educational Foundation, assembled an extremely diverse set of students to form the team. "Apart from the age criterion, we do not look for any minimum qualification while selecting, rather their skills and the drive to do something significant. None of them knew how to build a rover so we focused on their intent to make one," said Pradhan.

Growing up in Adruta Children's Home, an orphanage in Odisha, [illegible] Dash (17) had [illegible] realising her dream of studying [illegible] in the US. But her [illegible] said, earned her a spot on the team.

"I was four when my father passed away and my mother was unable to take care of me. She left me in an orphanage. The people at the orphanage helped nurture my talents. They always tried to provide for me, whether it was my education or my interest in science. They came to know about the NASA project and took me to meet Anil sir. I gave an interview and was selected."

Apart from Bhoi and Dash, the team includes 16-year-old Om Padhi, another resident of Adruta Children Home; Class 12 students, Siddharth Ghosh (18) from Maharashtra and Sai [illegible] Vemuri (17) from Andra Pradesh; and Class 10 student Chittineni Akarsh (15), also from AP, are the other members.

Each member has been assigned a role like prototype lead, marketing and branding lead, technical lead, design lead and so on. While someone worked on the chassis, some perfected the breaks, another worked on the wheels or ergonomics.

"As prototype lead, my role is to manage the development of a prototype application or system. This includes

Anil Pradhan,
Founder, Young Tinker Educational Foundation

Apart from the age criterion, we do not look for any minimum qualification while selecting, rather their skills and the drive to do something significant. None of them knew how to build a rover so we focused on their intent to make one

YOUNG TINKER Foundation team

FINANCIALS

YOUNG TINKER EDUCATIONAL FOUNDATION

PLOT NO-S-72, MAITREE VIHAR P.O - SE. RLY. PROJECT COMPLEX BHUBANESWAR Khordha OR 751023

CIN:U80902OR2019NPL031701

BALANCE SHEET AS ON 31ST MARCH 2023

	Particulars	Note No.	As on 31.03.2023 (Rs.Thousand)	As on 31.03.2022 (Rs.Thousand)
A	**EQUITY AND LIABILITIES**			
1	**Shareholders' funds**			
	(a) Share capital	1	100.00	100.00
	(b) Reserves and surplus	2	4,236.32	2,484.38
	(b) Money Received against share warrents		-	-
2	**Share application money pending allotments**		-	-
3	**Non-current liabilities**			
	(a) Long-term borrowings	3	75.56	75.56
	(b) Deferred tax liabilities (net)		-	-
	(c) Other Long Term Liabilities		-	
	(d) Long term provision		-	
4	**Current liabilities**			
	(a) Short Term Borrowings	4	-	-
	(b) Trade payables	5		
	(A) total outstanding dues of micro enterprises and small			
	(B) total outstanding dues of Creditors other than micro		-	-
	(c) Other current liabilities	6	-	-
	(d) Short-term provisions	7	196.46	114.66
	TOTAL		**4,608.34**	**2,774.60**
B	**ASSETS**			
1	**Non-current assets**			
	(a) **(i) Property, Plant and Equipment**	8	367.73	276.35
	(ii) Intangible assets		-	-
	(iii) Capital Work in progress		-	-
	(iv) Intangible Assets under Development		-	-
	(b) Non-current investments	9	-	-
	(c) Deferred Tax Assets			
	(d) Long term loans and Advances			
	(e) Other Non Current Assets			
2	**Current assets**			
	(a) Current Investments	10		
	(b) Inventories	11	-	-
	(c) Trade receivables	12	-	-
	(d) Cash and cash equivalents	13	4,170.61	2,498.25
	(e) Short-term loans and advances	14	70.00	-
	(f) Other Current Assets	15	-	-
	TOTAL		**4,608.34**	**2,774.60**

See accompanying notes forming part of the financial statements

In terms of our report attached.

For MDC & ASSOCIATES

Chartered Accountants

FRN: 322691E

(CA. C. R. Behera, FCA)
Partner
Membership No-058416
Place: Bhubaneswar
Date: 05-09-2023
UDIN : 23058416BGXZUH1654

Director

ANIL PRADHAN
(DIRECTOR)
DIN : 07535874

Vaishali Sharma

VAISHALI SHARMA
(DIRECTOR)
DIN:08566113

FINANCIALS

YOUNG TINKER EDUCATIONAL FOUNDATION
PLOT NO-S-72, MAITREE VIHAR P.O - SE. RLY. PROJECT COMPLEX BHUBANESWAR Khordha OR 751023
CIN:U80902OR2019NPL031701

STATEMENT OF PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31st MARCH 2023

	Particulars	Note No.	As on 31.03.2023 Rs.Thousand	As on 31.03.2022 Rs.Thousand
I	Revenue from operations (Gross)	16	5,430.89	2,562.77
	Less: Excise Duty		-	
	Revenue from operations (Net)		**5,430.89**	**2,562.77**
II	Other Income	17	53.58	-
III	**Total Income (I+II)**		**5,484.47**	**2,562.77**
IV	**Expenses**			
	(a) Cost of materials consumed	18	-	-
	(b) Purchase of Stock in Trade			
	(c) Changes in inventories of finished goods, work-in-progress and stock-in-trade	19	-	-
	(d) Employee benefits expenses	20	1,146.74	302.77
	(e) Finance costs	21	0.74	0.65
	(f) Depreciation and amortisation expenses		75.78	86.08
	(g) Other expenses	22	2,509.27	125.66
	Total Expenses		**3,732.53**	**515.16**
V	**Profit before exceptional and extraordinary iteam and tax**		**1,751.94**	**2,047.62**
VI	**Exceptional Iteams**		-	-
VII	**Profit before extraordinary iteam and tax**		1,751.94	2,047.62
VIII	**Extraordinary Iteams**		-	-
IX	**Profit before Tax**		1,751.94	2,047.62
X	**Tax Expense:**			
	(a) Current tax expense		-	-
	(b) Deferred tax			-
XI	**Profit / (Loss) for the period from continuing operations**		1,751.94	2,047.62
XII	**Profit / (Loss) from discontinuing operations**		-	-
XIII	**Tax from discontinuing operations**		-	-
XIV	**Profit/ (Loss) from discontinuing operations**		-	-
XV	**(Loss) for the Period**		**1,751.94**	**2,047.62**
XVI	**Earning per equity share:**			
	(1) Basic		**175.19**	**204.76**
	(2) Diluted		**175.19**	**204.76**

In terms of our report attached.
For MDC & Associates
Chartered Accountants
FRN:322691E

(CA. C. R. Behera, FCA)
Partner
Membership No-058416
Place : Bhubaneswar
Date:05-09-2023
UDIN : 23058416BGXZUH1654

ANIL PRADHAN
(DIRECTOR)
DIN :07535874

VAISHALI SHARMA
(DIRECTOR)
DIN:08566113

Thank You

Young Tinker programs are made possible through the generous contributions of our Young Tinker Supporters. You too can make a meaningful impact in a student's life through our program. Scan the QR code on the left to contribute.

Link: www.youngtinker.org/donate
All donations are eligible for tax exemption under 80G and 12A.

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www.youngtinker.org